Shuttle®

BAREBONE
XPC slim
XB860G2

FLEXIBLE 4.5-LITRE PC WITH PCI-E SLOTS

The Shuttle XPC slim Barebone XB860G2 is a 4.5-litre PC with two slots for PCI-Express expansion cards. Together with a powerful socket LGA1851 Intel Core Ultra 2xx desktop processor (code name "Arrow Lake-S"), this platform is perfectly suited for many professional applications where performance, flexibility and a compact form factor matter. You can install e.g. a multiport graphics card, a video capture card or I/O card to set up a mini PC for applications such as video wall presentations, graphics workstations, media capturing, surveillance, POS, POI as well as network and industrial applications. Even mid-range gaming is possible.

Supports INTEL CORE ULTRA	DUAL-SLOT PCI-EXPRESS	1x HDMI 2.1 (8K) 1x HDMI 2.0 (4K)	DP 1.4a	DUAL LAN 2.5G + 1G	2x 48 GB DDR5 SUPPORT	3 x NVMe SSD SUPPORT	OPTIONAL WLAN / 4G/5G	HEATPIPE COOLING	ALWAYS-ON-JUMPER	MAX. 50 °C	24/7 SUPPORT

SLIM DESIGN
- Robust black steel chassis with open front (without I/O covers)
- Dimensions: 23.7 x 20 x 9.5 cm (LWH), ca. 4.5-litre ■ Supports 24/7 Nonstop Operation ■ Operating temperature: 0~50 °C (non-condensing)
- Mini-ITX Mainboard (17 x 17 cm) ■ Hole for Kensington Lock
- VESA mount bracket included

OPERATING SYSTEM
- An operating system is not included
- Supports Windows 11 and Linux (64-bit)

PROCESSOR SUPPORT
- Socket LGA1851 supports Intel Core Ultra 200 series 9/7/5 processors (code name "Arrow Lake-S"), max. 65W TDP
- Advanced heatpipe cooling system with two 70 mm fans

CHIPSET
- Intel B860 Chipset

MEMORY SUPPORT
- 2x 262-pin SO-DIMM slot ■ Supports DDR5-5600
- max. 2x 48 GB = 96 GB in total

SLOTS AND STORAGE BAYS
- 2x PCI-Express Expansion Slots (Gen5 X16 and Gen4 X1)
- 3x M.2-2280M Slots für M.2 SSDs
    - Slot 1: supports PCIe Gen4x4 (NVMe) and SATA
    - Slot 2: supports PCIe Gen4x4 (NVMe) and USB3.2 Gen2
    - Slot 3: supports PCIe Gen5x4 (NVMe) - access from the bottom side
- 1x M.2-2230E slot supports an optional M.2 WLAN card

CONNECTORS
- HDMI 2.1 (8K) ■ HDMI 2.0 ■ DisplayPort 1.4a ■ Dual Intel LAN (2.5G and 1G) ■ 2x USB 3.2 Gen2 ■ 4x USB 3.2 Gen1 1 (1x Type-C) ■ 2x USB 2.0
- 2x Audio Ports (3.5 mm): Line-out and Mikrofon-Eingang ■ Connector for external Power Button ■ "Always-On" Jumper ■ DC-Input

POWER SUPPLY
- External power adapter: 180 W / 19.5 V

OPTIONAL ACCESSORIES
- WLAN kit with Wi-Fi 6 module and external antennas (WLN-M1/M12)
- Cable for external power button (CXP01)
- VGA port (PVG01) ■ Adapter to support a 4G/5G mobile card (WWN04)
- Expansion kit to support an additional 180W power adapter (PRC02)

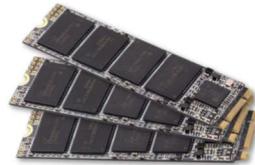8 887993 00813 4

Shuttle XPC slim PCs with Intel 800 series chipset

Product	Vol.	PCIe Slots	Chip	HDMI 2.x	DP 1.4a	DP 1.4a/ USB4	VGA Port	max. Displays	LAN (Intel)	M.2 SSD Gen4/5	USB 3.2 Gen2/1	USB 2.0	COM Port	Pwr Adap.	DC-In	VESA Mount
DH810S	1.35 L	—	H810	1	2	—	opt.	3	1G	1 / 0	2+2	4	1	120W	12V+19V	incl.
DH810	1.35 L	—	H810	1	1	1	opt.	3	1G+2.5G	1 / 0	2+2	4	2	120W	12V+19V	incl.
DB860	1.35 L	—	B860	2	1	1	opt.	4	1G+2.5G	0 / 1	4+4	0	2	180W	12V+19V	incl.
XH810	3.5L	X16	H810	2	1	—	opt.	3	1G+2.5G	2 / 0	2+2	4	3	120W	12V+19V	incl.
XB860G2	4.5L	X16+X1	B860	2	1	—	opt.	4	1G+2.5G	2 / 1	2+4	2	0	180W	19V	incl.

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PRODUCT FEATURES

Only 9.5 cm tall

The slim chassis - a clean and modern look

Shuttle has always placed great emphasis on the interior and exterior aesthetics of their Mini-PCs with the belief that a good blend of style and form factor allows the Mini-PC to be attractive, versatile and work well in almost any environment. The XB860G2 was designed just like that and shines in a clean and modern appearance. The front panel connectors are easy to access for daily use, and this tiny tot barely stands at 9.5 cm in height.

Low noise thanks to heatpipe cooling system

An active dual-fan heatpipe cooling system ensures whisper-quiet operation and system stability.

Supports extended temperature range and 24/7 operation

The Shuttle XPC slim Barebone XB860G2 is officially approved for 24/7 permanent operation. Thanks to its efficient cooling, this PC runs highly reliably making it perfectly suitable for digital signage and POI/POS applications - even at ambient temperatures of up to 50 °C (non-condensing).
Caution: For high ambient temperatures over 40 °C we strongly recommend to use SSDs.

Supports Socket LGA1851 Intel® Core™ Ultra processors

"Arrow Lake-S" is the codename for Intel's Core Ultra 200 series Generation of Intel® Core™ Ultra Desktop Processors for socket LGA1851 introduced along with the 800-Series chipsets. These processors feature up to 24 cores (8 Performance-cores and 16 Efficient-cores), up to 4 Intel Xe graphics cores and integrates a Neural Processing Unit (NPU).

Supports three digital displays and optional VGA

The XB860G2 features three digital video outputs: HDMI 2.1, HDMI 2.0 and DisplayPort (DP 1.4) which all can run at 4K (3840 x 2160 / 2160p) high resolution at 60 Hz frames per second. The HDMI 2.1 port can even support 8K resolution at 60 Hz. As an option, the XB860G2 has also be equipped with an additional VGA port. The PC supports a maximum of four displays.
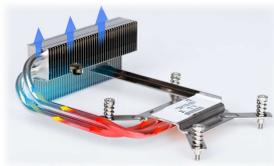
Three M.2-Slots for SSD cards

XB860G2 offers three M.2-2280 slots which support M.2 SSD storage cards with NVMe/PCIe (one of them on the bottom side of the PC). Type 2280 means, it supports the usual M.2 cards with a width of 22 mm and a length of 80 mm.

Two PCI-Express Slots

XB860G2 supports one dual-slot PCI-Express expansion card or two single-slot cards with a maximum length of 20.8 cm. For particularly power-hungry cards, a second power adapter can be installed as an option (PRC02 extension required).
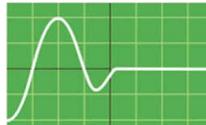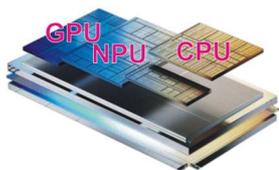
Dual Network (Intel 1G + 2.5G)

The Shuttle XPC slim Barebone XB860G2 supports Dual LAN with Intel network adapters, which are popular for their excellent performance and driver compatibility and are the preferred choice for professional environments. One LAN port even supports up to 2.5Gbps. With XB860G2 you can expand your network's bandwidth and reduce digital bottlenecks.

Power on after Power fail

The BIOS setup provides a "Power-On after Power Fail" function that can be found under "Power Management Configuration". As the name indicates, this function determines the PC's behaviour after power failure: (1) unconditional power on, (2) restore former status (3) keep system turned off (4) Power-On by LAN or (5) Power-On by Real-Time-Clock. As a matter of the nature of this function, it may fail after short power failures. This is why the XB860G2 also comes with a hardware-based solution. By removing Jumper JP4 the system will start unconditionally once power is applied.

External power button by separate remote line

If, because of space constraints (e.g. in case of fixed installation), the machine cannot be switched on by pressing the front power button, it can be powered on by a separate remote line. You will find an appropriate four-pin connector at the back panel of the XB860G2 (pitch 2.54 mm). Furthermore, this connector provides a Clear CMOS function and +5V DC voltage supply for external devices.

+5V voltage (2) |• •| (4) Power Button
Clear CMOS (1) |• •| (3) Ground

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REQUIRED COMPONENTS

The following components need to be added to make it a fully-configured Mini PC
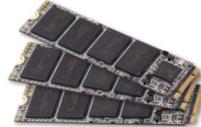
Shuttle XPC slim Barebone XB860G2

LGA1851 Processor
Intel Core Ultra 5/7/9 - 200 series
Code name "Arrow Lake-S"
TDP max. 65 W

Memory Modules
Up to two DDR5-5600 (or higher)
SO-DIMM memory modules max. 48 GB each
Total capacity: 96 GB

M.2 SSDs
Supports three M.2-2280 SSD cards
- Slot 1: supports PCIe Gen4x4 and SATA
- Slot 2: supports PCIe Gen4x4 and USB3.2 Gen2
- Slot 3: supports PCIe Gen5x4 (from bottom side)

PCI-Express Card (optional)
e.g. Dual Slot Graphics Card, PCIe X16, max. 75 W TDP
Dimensions: max. 208 mm x 120 mm x 45 mm
Two Single-Slot PCIe cards (X16 and X1) can also be used.

Graphics cards up to 225W are supported with
optional accessory **CXP02** and **PE180** – see below).
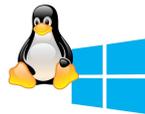
Operating System
Windows 11 or Linux (64-bit only)

OPTIONAL ACCESSORIES FROM SHUTTLE

WLAN-Accessory
WLN-M1/M12
Intel AX200/AX210 WLAN card
with two external antennas
supports WLAN 802.11ax (Wifi-
6) and Bluetooth

4G/5G Adapter Kit
WWN04
allows the installation of a 4G
or 5G card and nano SIM card
(occupies one M.2-2280 slot)

Cable CXP01
Cable for external push button
switch (without button)

VGA port adapter PVG01
This accessory will add an ana-
log VGA video output.
This provides a total of four
video outputs, all of which can
be active simultaneously.

Riser Card PRC02 and
Power Adapter PE180
With the **PRC02** expansion kit,
a second 180W power adapter
PE180 can be used to support
more powerful graphics cards.

EXAMPLES WITH PCE-EXPRESS EXPANSION CARDS

Despite its compact dimensions, the Shuttle XPC slim Barebone XB860G2 sports a full-size PCI-Express-X16 slot for dual-slot cards not exceeding 205 mm (length), 120 mm (height) and 45 mm (width) and max. 75 W power consumption. Two single-slot cards can also be used. At the same time, other powerful PC components such as an Intel Core Ultra 2xx processor or 96 GB DDR5 RAM are supported. This makes it particularly versatile in use which often asked for a bigger PC in the past.

Including 4-pin Molex connector with 5V/2A auxiliary voltage for special expansion card:

Shuttle XPC slim Barebone XB860G2
with powerful graphics card installed
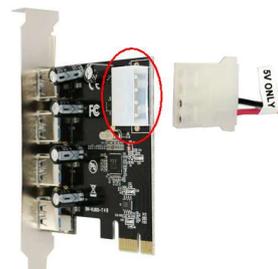
EXPANSION CARD	POSSIBLE APPLICATIONS
Gaming Graphics Card (Dual Slot) e.g. NVIDIA GeForce RTX 3050 or RTX 5060 (for RTX 5060: the extensions PRC02+PE180 is required – see below.)	• Desktop PC • 3D Workstation
Multi-port Graphics Card e.g. Matrox C680 with 6x Mini-DisplayPort	• Visualisation for Control Rooms • Surveillance and Security • Digital Signage with Video Wall • Information Display (POI)
CAD Graphics Card e.g. NVIDIA Quadro T400/T1000 and maximum NVIDIA RTX PRO 4000 Blackwell SFF	• CAD Applications • Content Creation • 3D Workstation
Video Capture Card e.g. with 4x SDI/BNC	• Multi-channel Capture System
Special Network Card e.g. Multiport or 10 Gbps	• Proxy and Firewall Applications • Intranet Server
Fieldbus Card e.g. EtherCAT, Profibus, CAN, Modbus, etc.	• Industry Automation • Conveyor Technology • Building Automation
Multi I/O Card e.g. 8x COM-Port, DA/AD converter, general-purpose input/output (GPIO)	• Point of Sales (POS) • Vending Machine • Automation / Control System
Receiver Card e.g. for SAT, DVB-T2, Cable	• Home Entertainment

Two PCI-Express Slots: X16 and X1

Optional Shuttle accessory for powerful graphics cards

With the **Shuttle XPC accessory PRC02** you can equip this PC with a second DC input to connect a second power adapter. This allows the use of even more powerful graphics cards. Graphics cards with 75W power dissipation are supported as standard. With an additional 90W or 180W power supply unit, this value increases to 150W or 225W.

PRC02
Expansion Kit

PE90
90W power adapter

PE180
180W power adapter

Optional Shuttle Accessory	Graphics Power Connector	Graphics TDP Power
XB860G2 without accessory	n.a.	max. 75 Watts
... with **PRC02** and **PE90** (2nd power adapter: 90W)	6-pin power connector	max. 150 Watts
... with **PRC02** and **PE180** (2nd power adapter: 180W)	8-pin power connector	max. 225 Watts

Graphics Power Connector

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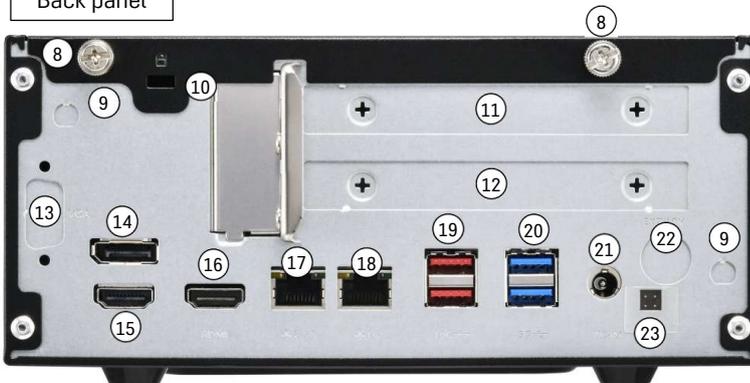4 | 14   Date: 2026-03-09   **WWW.SHUTTLE.EU**

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Front and Back Panel and Mainboard

Front panel

1. 2x USB 2.0 (black)
2. USB 3.2 Gen 1 Type-A (blue)
3. Microphone input
4. Headphones output
5. USB 3.2 Gen 1 Type-C
6. Power button with Power LED indicator
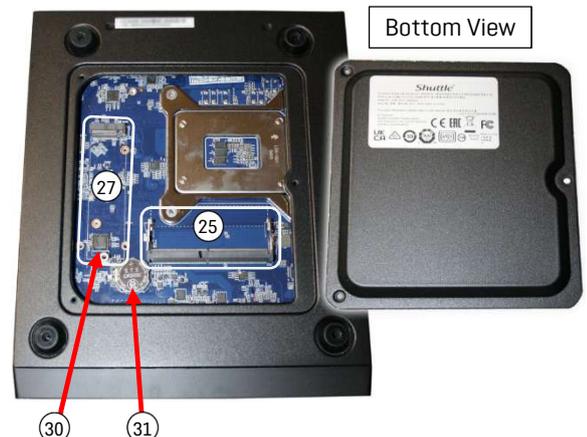7. LED indicator for storage activity

Back panel

8. 2x Thumbscrew
9. 2x Perforation for optional WLAN antenna
10. Hole for Kensington Lock
11. PCI-Express X1 expansion slot
12. PCI-Express X16 expansion slot
13. Optional VGA port (accessory PVG01)
14. DisplayPort 1.4
15. HDMI 2.0 port
16. HDMI 2.1 port (support 8K/60)
17. 2.5G LAN port (RJ45)
18. Gigabit LAN port (RJ45)
19. 2x USB 3.2 Gen 2 port (red)
20. 2x USB 3.2 Gen 1 port (blue)
21. DC-in connector for power adapter
22. Optional: second DC-in connector (PRC02) for second 180W power adapter (PE180)
23. 4-pin connector (2.54 mm pitch) for external power button, Clear CMOS button and 5V DC voltage

Mainboard

24. PCI-Express expansion slots (X16 and X1)
25. SO-DIMM socket for DDR5 memory (the second socket is on the bottom side)
26. CPU socket for LGA1851 processors
27. M.2-2280M slots for SSD modules (the third slot is on the bottom side)
28. M.2-2230E slot for optional WLAN module
29. Heatsink of the CPU heat-pipe cooling system
30. Flash EPROM for the BIOS
31. CMOS battery
32. Always-on-Jumper (JP1)

Bottom View

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Product Comparison: Shuttle XPC slim PCs with Intel 800 series chipset

MODEL	DH810(S) *)	DB860	XH810	XB860G2
Processor Support	Intel Core Ultra Processors 2xx "Arrow Lake-S" Socket LGA1851, TDP max. 65W			
OS Support	Windows 11 & Linux – 64-bit			
Chipset	Intel H810 Supports Triple Display	Intel B860 Supports Quad Display	Intel H810 Supports Triple Display	Intel B860 Supports Quad Display
Memory	Supports max. 2x 48 GB DDR5-5600 SO-DIMM (262 Pins)			
PCIe Slots	–	–	–	1x PCIe Gen5 x16 1x PCIe Gen4 x1
Drive Bays	1x 2.5" bay supports SATA Raid 0+1	1x 2.5" bay supports SATA Raid 0+1	2x 2.5" bay (or 1x 3.5") supports SATA Raid 0+1	–
M.2 Slots for SSDs	1x M.2-2280 (PCIe X4, SATA)	1x M.2-2280 (PCIe X4, SATA)	1x M.2-2280 (PCIe X4, SATA) 1x M.2-2280 (PCIe X2, USB3.2)	3x M.2-2280 (PCIe X4) one also supports SATA
Front Panel Ports	2x USB 3.2 Gen 2 (1x Type-C) 1x USB 2.0 2x Audio Power-Button Power-LED, HDD-LED	4x USB 3.2 Gen 2 (1x Type-C) 2x Audio Power-Button Power-LED, HDD-LED	2x USB 3.2 Gen 1 (1x Type-C) 2x USB 2.0 2x Audio Power-Button Power-LED, HDD-LED	2x USB 3.2 Gen 1 (1x Type-C) 2x USB 2.0 2x Audio Power-Button Power-LED, HDD-LED
Back Panel Ports	HDMI 2.1 (8K) DisplayPort 1.4 *) USB4/DisplayPort (USB-C) *) 2x USB 3.2 Gen 1 (blue) 2x USB 2.0 2x Intel LAN (1G and 2.5G) *) 2x COM RS232 (1x RS422/485) *) DC input (supports 12V and 19V) Header for ext. power button	HDMI 2.1 (8K) HDMI 2.0 DisplayPort 1.4 USB4/DisplayPort (USB-C) 4x USB 3.2 Gen 2 (red) 2x Intel LAN (1G and 2.5G) 2x COM RS232 (1x RS422/485) DC input (supports 19.5V) Header for ext. power button	HDMI 2.1 (8K) HDMI 2.0a DisplayPort 1.4 2x USB 3.2 Gen 2 (red) 2x USB 2.0 2x Intel LAN (1G and 2.5G) 3x COM RS232 (1x RS422/485) DC input (supports 12V and 19V) Header for ext. power button	HDMI 2.1 (8K) HDMI 2.0a DisplayPort 1.4 2x USB 3.2 Gen 2 (red) 2x USB 3.2 Gen 1 (blue) 2x Intel LAN (1G and 2.5G) DC input (supports 19.5V) Header for ext. power button
Power Adap.	120 W / 19 V DC-Input supports 12V and 19V	180 W / 19.5 V DC-Input supports 12V and 19V	120 W / 19 V DC-Input supports 12V and 19V	180 W / 19.5 V
Optional Accessories	Vertical stand (PS02) Power Button cable (CXP01) VGA-Port (PVG01) WLAN kit (WLN-M1/M12) 4G kit (WWN03) DIN-Rail Kit (DIR01) Rack-Mount Kit (PRM01)	Vertical stand (PS02) Power Button cable (CXP01) VGA-Port (PVG01) WLAN kit (WLN- M1/M12) 4G kit (WWN03) DIN-Rail Kit (DIR01) Rack-Mount Kit (PRM01)	Vertical stand (PS01) Power Button cable (CXP01) 3x COM Ports (PCM31) VGA-Port (PVG01) WLAN kit (WLN- M1/M12) 4G/5G kit (WWN04)	Power Button cable (CXP01) VGA-Port (PVG01) WLAN kit (WLN- M1/M12) 4G/5G kit (WWN04) Upgrade kit supports second power adapter (PRC02)
VESA Mount	included	included	included	included
Chassis Dimensions	19 x 16.5 x 4.3 cm (ca. 1.3 L)	19 x 16.5 x 4.3 cm (ca. 1.3 L)	23.8 x 20 x 7.25 cm (ca. 3.5 L)	23.7 x 20 x 9.5 cm (ca. 4.5 L)
Front View				
Back View	DH810: DH810S: 			

*) DH810S features 2x DisplayPort 1.4, but no USB4, 2.5G LAN and only one Serial COM port (RS232)

Shuttle Product Comparison with the predecessor: XB860G2 and XH610G2

MODEL	XB860G2	XH610G2
Processor Support	Intel Core Ultra Processors 2xx "Arrow Lake-S" Socket LGA1851, TDP max. 65W	Intel Core Processors Gen 12/13/14 "Alder Lake-S" / "Raptor Lake-S (Refr)" Socket LGA1700, TDP max. 65W
OS Support	Windows 11 & Linux – 64-bit	Windows 10/11 & Linux – 64-bit
Chipset	Intel B860 Supports Quad Display	Intel H610 Supports Triple Display
Memory (max.)	2x 48 GB DDR5-5600 SO-DIMM (262 Pins)	2x 32 GB DDR4-3200/2666/2400 SO-DIMM (260 pins)
Drive Bays	—	1x 2.5" bay (SATA v3.0) Max. 9.5 mm height
PCI-Express Slot X16	PCI-Express Gen 5.0 X16 Max. Length/Width: 205/45 mm Max. TDP: 75 W	PCI-Express Gen 5.0 X16 Max. Length/Width: 205/45 mm Max. TDP: 75 W
PCI-Express Slot X1	PCI-Express Gen 4.0 X1	PCI-Express Gen 3.0 X1
M.2 Slots for SSDs	M.2-2280M (PCIe Gen4 x4 / SATA) M.2-2280M (PCIe Gen4 x4) M.2-2280M (PCIe Gen5 x4)	M.2-2280M (PCIe Gen3 X4 / SATA) M.2-2280M (SATA only)
M.2 Slots for WLAN	M.2-2230E (for WLAN modules)	M.2-2230E (for WLAN modules)
Front Panel Ports	2x USB 3.2 Gen 1 (1x Type-C) 2x USB 2.0 (black) 2x Audio (Mic.+Line out) Power-Button Power-LED, HDD-LED	2x USB 3.2 Gen 1 (5 Gbps, blue) 2x USB 2.0 (black) 2x Audio (Mic.+Line out) Power-Button Power-LED, HDD-LED
Back Panel Ports	HDMI 2.1 (8K) HDMI 2.0 DisplayPort 1.4 2x USB 3.2 Gen 2 (red) 2x USB 3.2 Gen 1 (blue) 2x Intel LAN (1G and 2.5G) DC input (supports 19.5V) Connector for ext. Power Button	HDMI 2.0a/1.4b*) DisplayPort 1.4 2x USB 3.2 Gen 1 (5 Gbps, blue) 2x USB 2.0 (black) 1x LAN (1G) Optional COM or VGA port ** DC input (supports 19.5V) Connector for ext. Power Button
Power Adapter	180 W / 19.5 V	180 W / 19.5 V
Optional Accessories	WLAN-Kit mit Antennen (WLN- M1/M12) Power Button Kabel (CXP01) D-Sub/VGA Port Adapter(PVG01) 4G/5G kit with antennas (WWN04) Upgrade kit supports second power adapter (PRC02+PE180)	WLAN-Kit mit Antennen (WLN- M1/M12) Power Button Kabel (CXP01) COM Port Adapter (PCP11) ** D-Sub/VGA Port Adapter(PVG01) ** 4G kit with antennas (WWN03) Upgrade kit supports second power adapter (PRC02+PE180)
VESA Mount	included	included
Chassis Dimensions	23.7 x 20 x 9.5 cm (ca. 4.5 L)	23.7 x 20 x 9.5 cm (ca. 4.5 L)
Front View		
Back View		

SHUTTLE XPC SLIM BAREBONE XB860G2 — SPECIFICATIONS

CHASSIS	Slim 3.5-litre chassis, colour: black Dimensions: 238 x 200 x 72.5 mm (LWH without rubber feet and thumbscrews) = ca. 3.5-litre Length including thumbscrews: 250 mm Height including rubber feet: 73.3 mm Weight: 1.9 kg net, 3.2 kg gross Hole for Kensington Lock at the backpanel Operation position horizontal or vertical with the included VESA mount
POWER ADAPTER	External 180 W power adapter (fanless) Input: 100~240 V AC, 50~60 Hz, max. 2.5 A Output: 19.5 V DC, max. 9.23 A, max. 180 W output wattage AC Connector with protective-earth contacts, cable length: 1.7 m DC Connector: 5.5 / 2.5 mm (outer/inner diameter)
OPERATING SYSTEM	This system comes without operating system. It is compatible with Windows 11 and Linux (64-bit)
PROCESSOR SUPPORT	Processor Socket LGA1851 Supports Intel Core Ultra 200 series 9/7/5 processors Code name "Arrow Lake-S" Maximum supported processor power consumption (Base TDP) = 65 W Does not support the unlock-function of Intel K-Series processors. Up to 24 cores (8 Performance-cores and 16 Efficient-cores) Neural Processing Unit (NPU) with 13 TOPS AI-Performance
PROCESSOR COOLING	Processor cooling with heat-pipe technology and two fans (6cm)
MAINBOARD, CHIPSET, BIOS	Mainboard in Mini-ITX form factor 17 x 17 cm Chipset: Intel® B860 AMI BIOS in 32 MB EEPROM All capacitors are high quality solid capacitors Supports hardware monitoring and Watchdog functionality Supports Unified Extensible Firmware Interface (UEFI) Supports power on after power failure **[1]** Supports Firmware TPM v2.0 (fTPM)
MEMORY SUPPORT	2x SO-DIMM slot with 262 pins Supports DDR5-5600 (PC5-44800) SDRAM at 1.1 V Supports Dual Channel mode Supports a maximum of 48 GB per DIMM, maximum total size: 96 GB Note: Supports two unbuffered DIMM modules (no ECC or registered)
INTEGRATED GRAPHICS	The features of the integrated Intel graphics function with Xe cores depend on the processor type used. **[4]** The PC features these graphics outputs: - HDMI 2.1 supports 8K UHD with max. 7680x4320 Pixel at 60 Hz (4320p60) - HDMI 2.0 supports 4K UHD with max. 4096x2160 Pixel at 60 Hz (2160p60) - DisplayPort supports 4K UHD with max. 4096x2160 Pixel at 60 Hz (2160p60) - optional one analog Sub-D/VGA port (optional Accessory PVG01) Supports up to four independent displays with the integrated graphics function. If the HDMI 2.1 port is operated with an 8K monitor, the second HDMI port cannot be used. DisplayPort and HDMI support multi-channel digital audio over the same cable.
TWO PCI-E EXPANSION SLOTS	The pre-installed 90° Riser Card provides two PCI-Express expansion slots: 1x PCI-Express X16 Gen 5 slot 1x PCI-Express X1 Gen 4 slot Supports dual-slot (double-width) graphics cards (occupies the second PCI-Express slot) The used PCIe X16 expansion card must meet the following conditions: 1) Maximum dimensions: 205 mm x 120 mm x 45 mm 2) Maximum power consumption: 75 W (optional up to 225 W **[8]**) For special purposes, the mainboard provides a 5V auxiliary voltage (max. 2 A) via 4-pin Molex connector.

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AUDIO	Audio Realtek® ALC 888S High-Definition Audio Two analog audio connectors (3.5 mm) on the front panel: 1) 2-channel line-out (head-phones) 2) microphone input Digital multi-channel audio output: by HDMI and DisplayPort
DUAL LAN	Dual network with two RJ45 ports with two status LEDs each Used network chips: 1) Intel 226LM (left RJ45 port) supports 100 / 1.000 / 2.500 Mbps data transfer rate 2) Intel 219LM (right RJ45 port) supports 10 / 100 / 1.000 Mbps data transfer rate Supports WAKE ON LAN (WOL) [7] Supports network boot by Preboot eXecution Environment (PXE)
THREE M.2-2280M SSD SLOT	Three M.2 2280M slots provides the following interfaces: - Slot 1: supports PCIe Gen4 x4 (NVMe) and SATA (max. 6 Gbps) - Slot 2: supports PCIe Gen4 x4 (NVMe) and USB3.2 Gen2 (max. 10 Gbps) - Slot 3: supports PCIe Gen5 x4 (NVMe) - access from the bottom side [9] It supports M.2 cards with a width of 22 mm and a length of 80 mm (type 2280). Use the supplied heat sink kit to install the M.2 SSD on the bottom side. [9]
M.2-2230E SLOT FOR WLAN CARDS	Interfaces: PCI-Express Gen4 X1, USB 2.0 and CNVi Supports M.2 cards with a width of 22 mm and a length of 30 mm (type 2230) Supports WLAN expansion cards Optional Shuttle accessory: WLN-M1/M12 [3]
FRONT PANEL CONNECTORS	Microphone input Audio Line-out (headphones) 1x USB 3.2 Gen 1 Type A (max. 5 Gbps, blue) 1x USB 3.2 Gen 1 Type C (max. 5 Gbps) 2x USB 2.0 (black) Power button Power LED (blue) HDD LED (yellow)
BACK PANEL CONNECTORS	1x HDMI 2.1 (right side) 1x HDMI 2.0 (left side) 1x DisplayPort 1.4a [2] 2x USB 3.2 Gen 2 Type A (max. 10 Gbps, red) 2x USB 3.2 Gen 1 Type A (max. 5 Gbps, blue) 1x 2.5G LAN (RJ45 port, Intel 226LM chip) 1x Gigabit LAN (RJ45 port, Intel 219LM chip) 1x DC-input connector for external power adapter (supports 19.5V only) 1x 4-pin connector (2.54 mm pitch) supports: - external power on button (see optional accessory CXP01) - Clear CMOS function - +5V DC voltage for external components 2x Perforation for Wireless LAN antennas 1x Perforation for optional VGA port (optional Accessory PVG01) 1x Hole for Kensington Lock
OTHER ONBOARD CONNECTORS	Jumper J1 for power-on-after-power-fail (hardware solution) [1] Front connectors for power button, LEDs, USBs, audio ports 4-pin fan connector (occupied by the CPU cooling system) SATA power connectors: 5V (4-pin) and 12V (3-pin) Header for an optional VGA port "VGA1" (optional Accessory PVG01)
SUPPLIED ACCESSORIES	Multi-language installation guide (EN, DE, FR, ES, JP, KR, SC, TC) DVD with Windows 11 driver software and manuals in PDF format External power adapter with ca. 1.8m AC power cord (with protective-earth contacts) Protector cap for the CPU socket (do not use if heat-pipe or fan is mounted) CPU heatpipe cooling system pre-installed with heatsink compound Heat sink kit for SSD card with screws (for the M.2-2280 slot on the underside) supplied with four thermal pads, 20x70mm, in various thicknesses [9] VESA mount (metal) supports 75x75 and 100x100 mm VESA standard Four screws M3 x 5 mm (screws together VESA mount and PC) Four screws M4 x 10 mm (to affix VESA mount on the back of a monitor) Four screws (M3x5, silver) for installation of three M.2-SSDs and one WLAN card

OPTIONAL ACCESSORIES	**CXP01:** adapter cable for external power button **PVG01:** Adapter for a VGA port **WLN-M1/M12** (802.11ax, Wifi 6): WLAN module with two antennas **[3]** **WWN04:** Adapter/Antenna kit for 4G/5G expansion card **PRC02:** Expansion kit to support an additional power adapter (PE90 or PE180) for more powerful graphics cards [6]
ENVIRONMENTAL SPECIFICATIONS	Operating temperature range: 0~50°C **[5]** Relative humidity range: 10~90% (non-condensing)
CERTIFICATIONS / COMPLIANCE	EMI: CE, UKCA, FCC, BSMI, RCM, VCCI Safety: CB 60950/62368, cTUVus, BSMI Other: RoHS, Energy Star, ErP This device is classed as a technical information equipment (ITE) in class B and is intended for use in living room and office. The CE-mark approves the conformity by the EU directives: (1) 2004/108/EC relating to electromagnetic compatibility (EMC), (2) 2006/95/EC relating to Electrical Equipment designed for use within certain voltage limits (LVD), (3) 2009/125/EC relating to ecodesign requirements for energy-related products (ErP)

[1] Power-on-after-power-fail:
The BIOS setup provides a "power-on-after-power-fail " function that can be found under "Power Management Configuration". As the name indicates, this function determines the PC's behaviour after power failure: (1) unconditional power on, (2) restore former status or (3) keep system turned off. As a matter of the nature of this function, it may fail after short power failures. This is why this PC also comes with a hardware-based solution. By removing the appropriate jumper JP1, the system will start unconditionally once power is supplied.

[2] How to convert DisplayPort into HDMI/DVI
The DisplayPort output supports Dual-mode (DP++) and can be converted to HDMI or DVI by an additional, passive adapter cable. For example:
DELOCK 82590: 1m, DisplayPort (male, 20p) to HDMI-A (male, 19p)
DELOCK 82435: 5m, DisplayPort (male, 20p) to DVI-D (male, 24p)
The integrated graphics automatically detects the connected display and puts out the appropriate electric signal - either DisplayPort (without an adapter) or HDMI/DVI (with an adapter). Please note that DVI/HDMI monitors are only operated in single-link mode, i.e. max. 1920x1200 with 60 Hz. However, a monitor with a DisplayPort connector cannot be connected to the HDMI port with a simple, passive adapter.

[3] Optional Wireless LAN module: This slim PC can optionally be upgraded with WLAN/Bluetooth functionality. Shuttle offers the suitable accessory kit WLN-M1/M12, consisting of a WLAN card in M.2-2230 format and two external antennas with appropriate antenna cables.

[4] Intel processors without integrated graphics (ID ends with "F", e.g. Core Ultra 7 265F) are not compatible.

[5] High ambient temperature - For high ambient temperature over 40°C we strongly recommend to use SSDs instead of hard disk drives.

[6] Expansion Kit PRC02 - With the Shuttle XPC accessory PRC02 you can equip this PC with a second DC input to connect a second power adapter. This allows the use of even more powerful graphics cards. Graphics cards with 75W power dissipation are supported as standard. With an additional 90W or 180W power supply unit, this value increases to 150W or 225W.

[7] Note on the Wake-on-LAN function
Summary: Please use the 2.5G network connection for the WOL function.
Explanation: This PC has two network connections (LAN ports):
(1) 1.0G (Intel 219 chip)
(2) 2.5G (Intel 226 chip)
The PC supports the Wake-on-LAN function (WOL) to start the switched-off computer (from S5 mode) via the network. The following settings can be found in the 'Advanced' BIOS setup:
(1) Wake Up by LAN = Enabled (this activates WOL)
(2) Power-On after Power-Fail = Power On by LAN
The second setting defines the behaviour after a power failure – in this case, the PC should not switch on immediately as soon as power is restored, but should wait for the power-on signal via the network connection. However, after a power failure, switching on via the network (WOL) only works via the 2.5G network port for technical reasons. Do not use the 1.0G network port for the WOL function if you expect that the PC's power supply could be interrupted.

[8] Expansion Kit PRC02
With the Shuttle XPC accessory PRC02 you can equip this PC with a second DC input to connect a second power adapter. This allows the use of even more powerful graphics cards. Graphics cards with 75W power dissipation are supported as standard. With an additional 90W or 180W power supply unit, this value increases to 150W or 225W.

[9] M.2 slot on the bottom
There is a case cover on the bottom of the PC, under which there is a third M.2 slot for SSD cards in M.2-2280 format. Since this slot is not located in the airflow of the cooling fan (like the other two M.2 slots), this SSD card must be specially cooled. For this purpose, a two-piece heat sink kit with four 20 x 70 mm thermal pads in various thicknesses is included.

(1) Before installing the M.2 SSD card in the heat sink, a 1.75 mm thick thermal pad must be mounted at the top and at the bottom. If the SSD card is equipped with chips on both sides, then choose the 0.5 mm thick thermal pad for the bottom.

(2) After installing the SSD card in the M.2 slot, mount the 3 mm thick thermal pad on top to create a thermal bridge to the case cover.
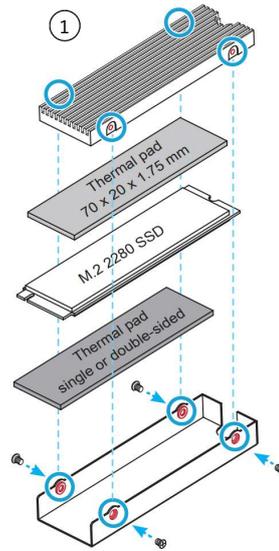
INTEL CORE ULTRA GEN. 2 DESKTOP PROCESSOR FAMILY

Socket LGA1851, Code Name "Arrow Lake-S" processor overview (Date: May 2025)
Each processor containing an NPU capable of upto 13 TOPS
Processors with a TDP of more than 65W and processors without graphics function (ID ends with "F") are not supported by XB860G2 (marked in red).

PROCESSOR	MODEL	P-CORES/ THREADS	P-CORES Base/Turbo2.0	E-CORES	E-CORES Base/Turbo2.0	SMART CACHE	BASE TDP	MEMORY SUPPORT	Intel® Graphics Xe Cores / Clock Rate
Core Ultra 9	285K	8 / 8	3.7 – 5.5 GHz	16	3.2 – 4.6 GHz	36 MB	125 W	DDR5-5600/6400	4 Cores, max. 2.00 GHz
	285	8 / 8	3.7 – 5.4 GHz	16	1.9 – 4.6 GHz	36 MB	65 W	DDR5-5600/6400	4 Cores, max. 2.00 GHz
	285T	8 / 8	1.4 – 5.3 GHz	16	1.2 – 4.6 GHz	36 MB	35 W	DDR5-5600/6400	4 Cores, max. 2.00 GHz
Core Ultra 7	265K	8 / 8	3.9 – 5.4 GHz	8	3.3 – 4.6 GHz	30 MB	125 W	DDR5-5600/6400	4 Cores, max. 2.00 GHz
	265KF	8 / 8	3.9 – 5.4 GHz	8	3.3 – 4.6 GHz	30 MB	125 W	DDR5-5600/6400	None
	265	8 / 8	2.4 – 5.2 GHz	8	1.8 – 4.6 GHz	30 MB	65 W	DDR5-5600/6400	4 Cores, max. 1.95 GHz
	265F	8 / 8	2.4 – 5.2 GHz	8	1.8 – 4.6 GHz	30 MB	65 W	DDR5-5600/6400	None
	265T	8 / 8	1.5 – 5.2 GHz	8	1.2 – 4.6 GHz	30 MB	35 W	DDR5-5600/6400	4 Cores, max. 1.95 GHz
Core Ultra 5	245K	6 / 6	4.2 – 5.2 GHz	8	3.6 – 4.6 GHz	24 MB	125 W	DDR5-5600/6400	4 Cores, max. 1.90 GHz
	245KF	6 / 6	4.2 – 5.2 GHz	8	3.6 – 4.6 GHz	24 MB	125 W	DDR5-5600/6400	None
	245	6 / 6	3.5 – 5.1 GHz	8	3.0 – 4.5 GHz	24 MB	65 W	DDR5-5600/6400	4 Cores, max. 1.90 GHz
	245T	6 / 6	2.5 – 5.1 GHz	8	1.9 – 4.5 GHz	24 MB	35 W	DDR5-5600/6400	4 Cores, max. 1.90 GHz
	235	6 / 6	3.4 – 5.0 GHz	8	2.9 – 4.4 GHz	24 MB	65 W	DDR5-5600/6400	3 Cores, max. 2.00 GHz
	235T	6 / 6	2.2 – 5.0 GHz	8	1.6 – 4.4 GHz	24 MB	35 W	DDR5-5600/6400	3 Cores, max. 2.00 GHz
	225	4 / 4	3.3 – 4.9 GHz	4	1.8 – 4.4 GHz	20 MB	65 W	DDR5-5600/6400	2 Cores, max. 1.80 GHz
	225F	4 / 4	3.3 – 4.9 GHz	4	2.7 – 4.4 GHz	20 MB	65 W	DDR5-5600/6400	None
	225T	4 / 4	2.5 – 4.9 GHz	4	2.7 – 4.4 GHz	20 MB	35 W	DDR5-5600/6400	2 Cores, max. 1.80 GHz

K = unlocked, **T** = Power optimized lifestyle, **F** = without integrated graphics, **Base TDP** = Base Thermal Design Power (max. Base Power Consumption).

Note: The Shuttle XPC slim Barebone **XB860G2** does <u>not</u> support the Unlock-function of Intel **K-Series** processors.
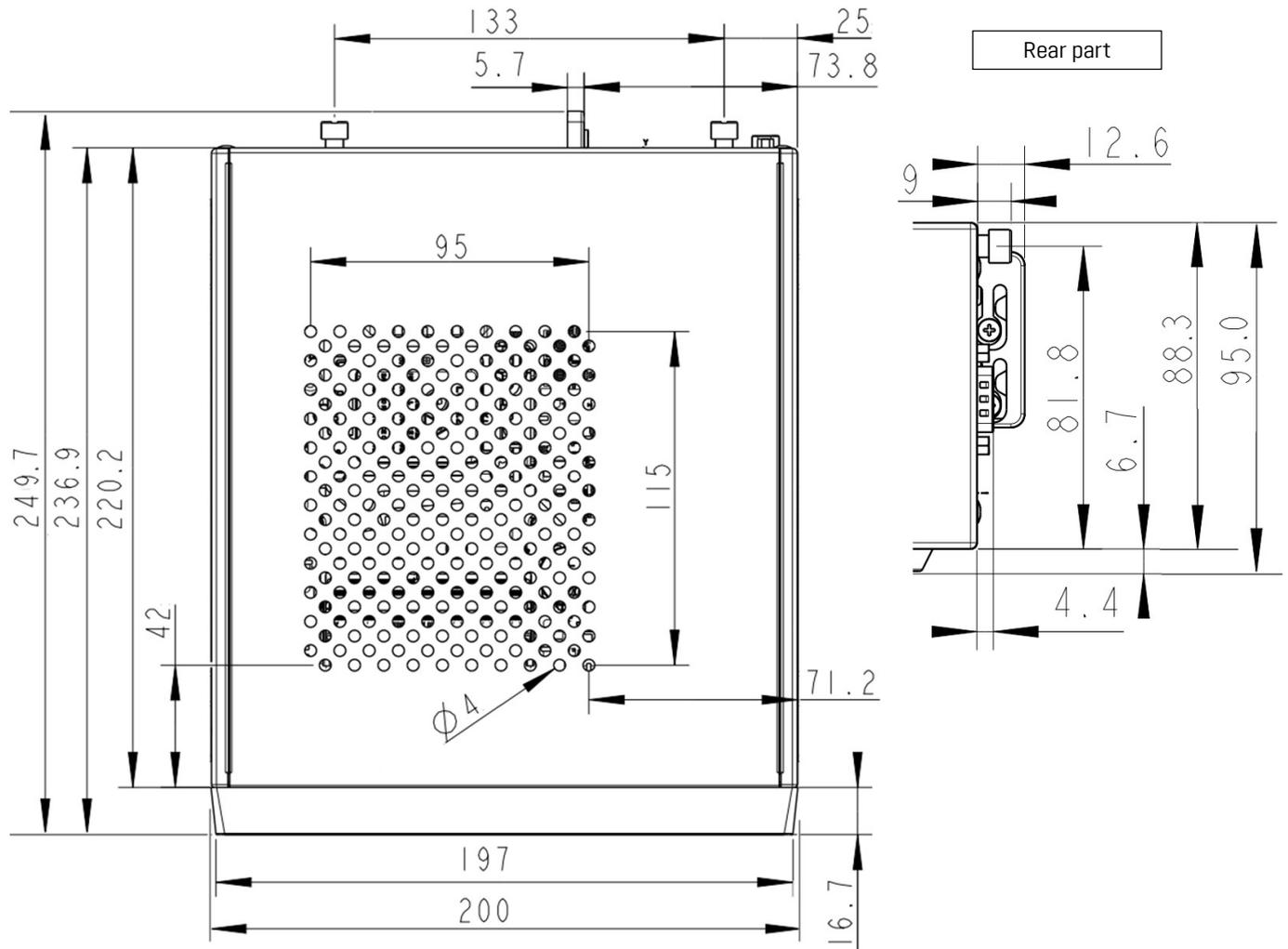**P-Cores:** Performance-Cores (without Hyper-Threading/SMT support), **E-Cores:** Efficient-Cores
Core Clock: the listed core frequency ranges from Base Frequncy to Turbo Boost 2.0 Frequency (Turbo Boost 3.0/TVB Frequency is not mentioned here)
Base TDP: Processor Base Power dissipation that the processor is validated to not exceed at Base Frequency (Max. Turbo Power is not mentioned here)
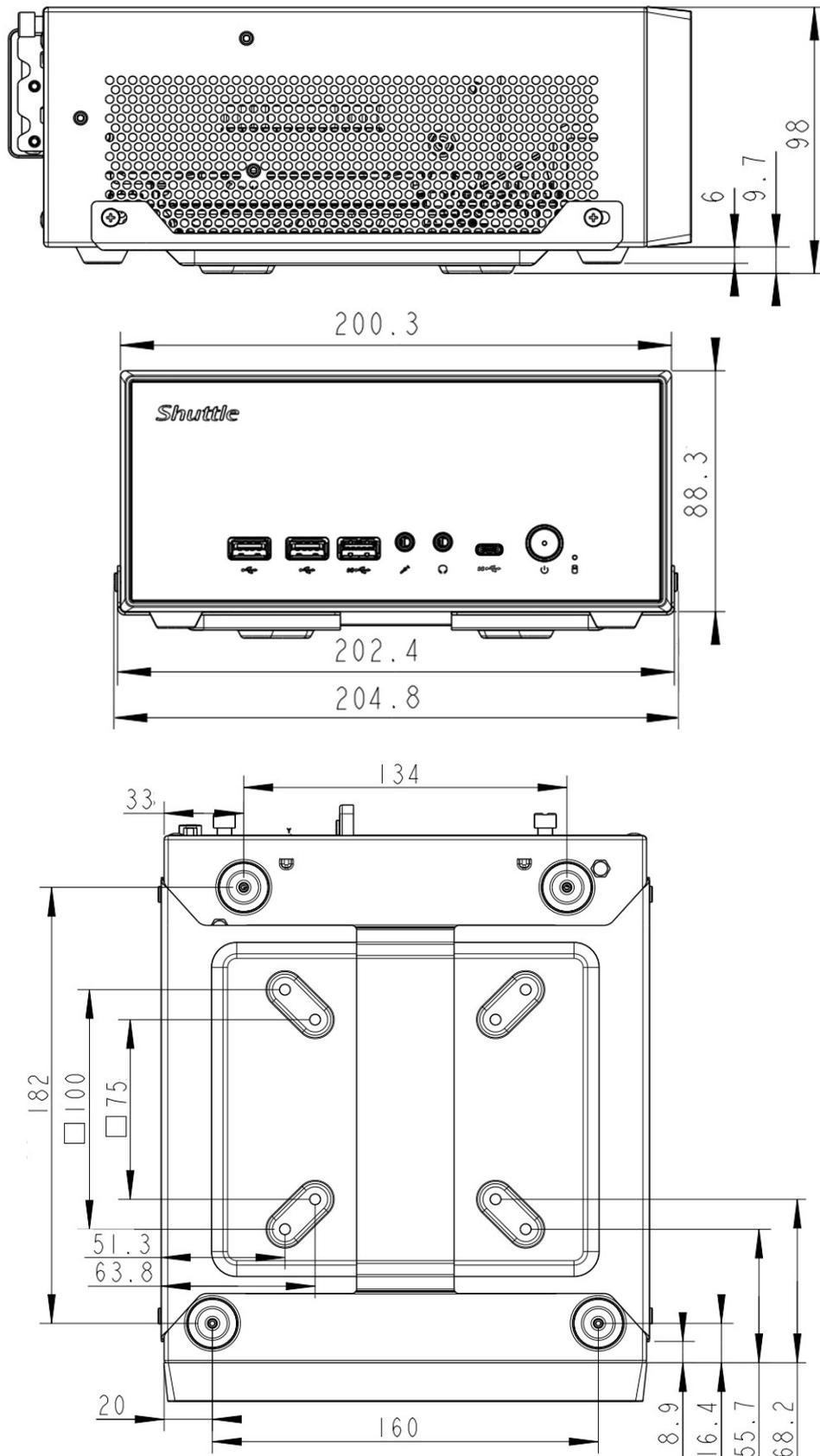Please refer to the support list for detailed processor support information at global.shuttle.com.

Chassis drawing XB860G2:

Rear part

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Chassis Drawing XB860G2:

With VESA mount (included)

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