

IBOX-601-GT-PRO



- Integrated up to eight Performance-cores, that enhance IoT workload consolidation, and up to eight Efficient-cores, that enhance background task management and multitasking;
- Up to 32 graphics execution units (EUs) based on Intel® UHD Graphics 770 driven by Intel® Xe Architecture, allows for eye-catching visuals;
- Support up to 4* easily Swappable 2.5 inch HDD Design with RAID 0/1/5/10;
- The graphics, media, and display engine with up to two VDBOXes that can decode over 40 incoming video streams at 1080p and 30 frames per second;
- Modular parts design with Active and passive heat dissipation design, come with aluminum alloy cooling enclosure, anti-vibration and anti-interference;
- Support NVIDIA® GeForce RTX™ 20/30/40/50 Series GPU with a riser kit, up to RTX 5080;



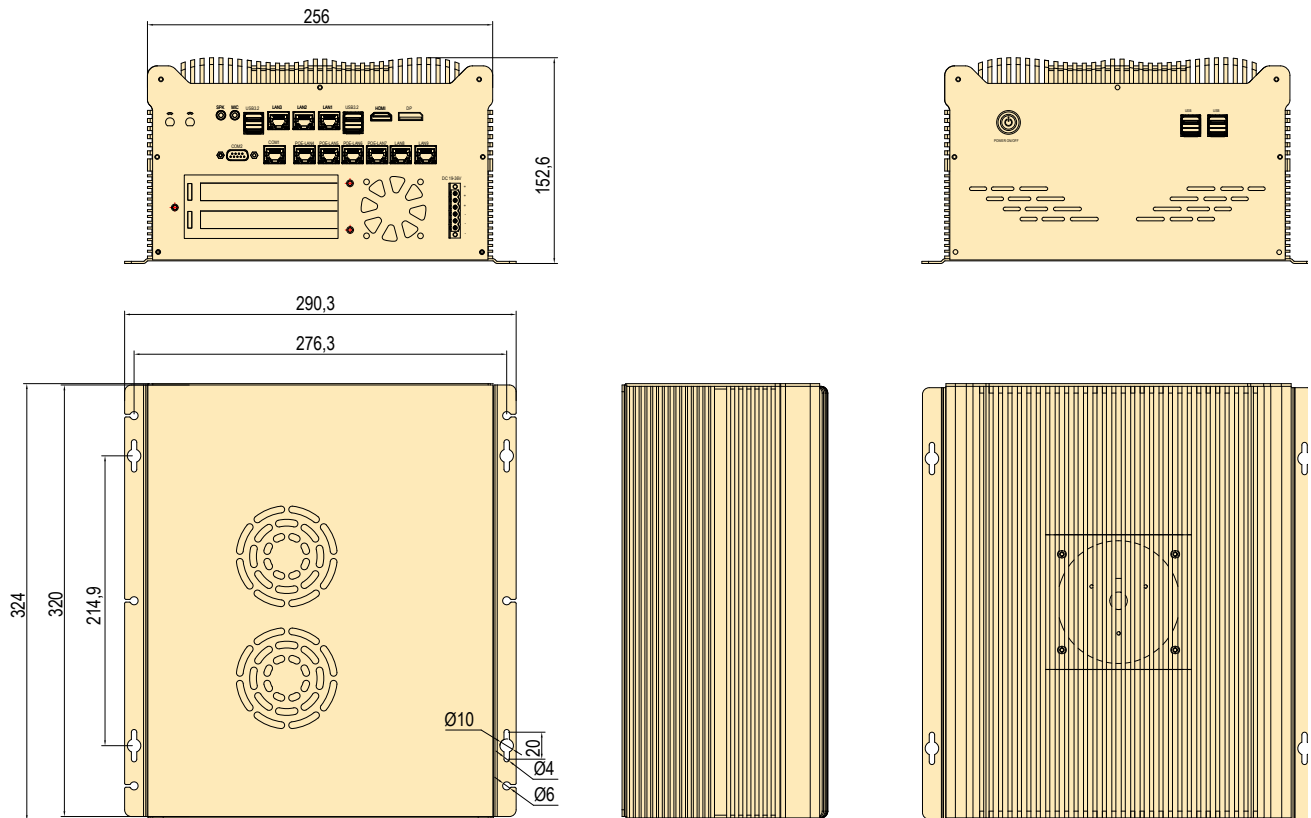
The actual appearance is subject to the final configuration.

Specifications

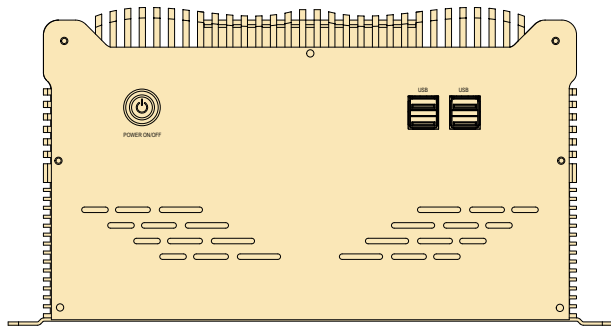
Model	IBOX-601-GT-PRO		
Supported OS	Win 10, Win 11, Linux (Ubuntu, Debian, Kali, CentOS, etc.); Win 10 IoT		
Chipset	Intel® H770 Chipset, TDP 6W		
CPU	Socket	Intel® Desktop Processors Socket LGA1700	
	Series	Gen.12/13/14 Intel® Core™ i3 processor (base TDP up to 35-219W)	Gen.12/13/14 Intel® Core™ i9/ i7/ i5 processor (base TDP up to 35W)
	Graphic	Intel® UHD Graphics 730, 24 Execution Units	
		Intel® UHD Graphics 770, 32 Execution Units	
RAM	Type&Qty	2* Dual-CH DDR4 3200 MHz SO-DIMM Socket, Capacity up to 128GB	
Storage Device	SATA	1* 2.5" SATA3.0 Bay on daughterboard (6Gb/s); 4* SATA3.0 connectors (6Gb/s), Support RAID 0/1/5/10 (SATA3&4 are colay with PCIe2 of NGFF1)	
	MSATA	1* mSATA3.0 slot on board (6Gb/s)	
	M.2	1* M.2 2280 M-key slot (NGFF3) , support PCIe4 Gen.3 NVMe SSD (From CPU); 1* M.2 2280 M-key slot (NGFF1) , support PCIe2 Gen.3 NVMe/ SATA3.0 SSD (From PCH, the PCIe2 signale is colay with SATA 3&4)	
I/O Interface	COM	1* RS232/485 with RJ45 connector, 1* RS232/485 with DB9 connector, switchable by jumper	
	Ethernet	2* Intel® i210AT GbE LAN, RJ45 connector; 1* Intel® i219LM GbE LAN, RJ45 connector 6* Intel® i226 GbE LAN, RJ45 connector (One of Poe GbE LAN is shared with Mini-PCIe's PCIe signal on daughterboard)	
	USB	4* USB3.2 Gen 2x1 (10Gb/s); 4* USB3.0 (5Gb/s); (USB3.0-1 is colay with M.2 B Key slot, USB3.0-2 is colay with Mini-PCIe slot on motherboard);	
	Video	1* DP, Support 7680 x 4320 @60Hz+1* HDMI, Support 4096x2160 @24Hz (Optional 2* DP, Support 4096 x 2304@60Hz); Optional with one more HDMI port, expanded by TP-IPC daughter card, supports 3 independent displays	
	Audio	1* MIC, 1* SPK; With 7.1+2 channels HD (High Definition) Audio Codec Realtek ALC897	
	SIM	2* External SIM card slot, SIM 1 is connected to M.2 B-key slot, SIM2 is connected to Mini-PCIe slot on daughterboard; (Available with one more internal SIM card slot when using a LTE module with SIM card slot)	
	Power Supply	19-36 VDC; 1* Terminal Block (4-Pin, 5.08mm)	
	Other	1* 8-bit GPIO, Terminal Block (12-Pin, 3.81mm), 4-Inputs/4-Outputs, 0-5V Input Range; 1* Terminal Block (4-Pin, 3.81mm Pitch) with Remote Switch and Power Indicator; 1* Auto-On Jumper; 1* TPM header (2*6-pin)	
Extended Capabilities	Additional Internal Interface	1* PCIe4.0 x16 or 2* PCIe4.0 x8; 1* M.2 3042/3052 B-key Slot with SIM card slot1 (USB3.0, USB signal is colay with USB1 on motherboard); 1* Full Size Mini-PCIe Slot (PCIe+USB2.0, on motherboard, without SIM card slot, USB signal is colay with USB2 on motherboard); 1* Full Size Mini-PCIe Slot with SIM card slot2 (PCIe+USB2.0, on daughterboard, the PCIe signal is colay with one LAN on daughterboard); 1* M.2 2230 E-key Slot (PCIe+USB2.0, support CNVi, WiFi+BT)	
Environment	Operating Temp.	-10 ~ 55 °C w/ 0.7m/s Airflow	
	Storage Temp.	-40 ~ 85 °C (-40~185 °F)	
	Relative Humidity	40 °C @ 95%, Non-Condensing	
Physical	Dimensions	290.3* 152.6* 324 mm (W* H* D)	
Characteristics	Net Weight	4.55 KG (The weight does not include graphics card, the final weight is subject to the actual configuration)	
Regulation	EMC	CE/FCC Class B, CCC	
	Safety	CE-LVD, RoHS, CCC	

Dimension

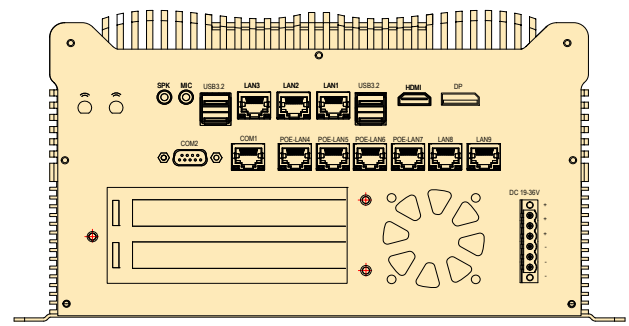
Unit:mm



Front Panel External I/O Mechanical Layout/Drawing



Rear Panel External I/O Mechanical Layout/Drawing



Ordering Information

SO-DIMM Socket	M.2 2280 M-key Slot	mSATA3.0 Slot	SATA3.0 Connector	PCIe 4.0 x16	M.2 3052 B-key Slot	Full Size Mini-PCIe	M.2 2230 E-key Slot	RS232/ RS485 with RJ45	RS232/RS485 with DB9
2	2	1	5	1	1	2	1	1	1

GbE LAN	USB3.2 Gen2	USB3.0	HDMI	DP	MIC	SPK	Remote Switch	8-bit GPIO	Power Input
9	4	4	1	1	1	1	1	1	DC 19-36V

Packing list

Deafulst Items	Qty
IBOX-601-GT-PRO Unit	1
AC-to-DC Adapter	1
Power cable 3-pin 150cm	1

Options for default items

Optional Items	Qty
Power cable 3-pin 150cm, USA type	-
Power cable 3-pin 150cm, EU type	-
Power cable 3-pin 150cm, UK type	-
Swappable hard-drive bracket kit	-

Processors Info & Available List

CPU	Code Name	Total Cores	Total Threads	Max Turbo Frequency	Base Frequency	Cache	TDP	Memory Types	Integrated Graphics
Intel® Core™ i3-12100T	Alder Lake	4	8	4.10 GHz	2.20 GHz	12 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 730, 24EUs
Intel® Core™ i5-12500T	Alder Lake	6	12	4.40 GHz	2.00 GHz	18 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i7-12700T	Alder Lake	12	20	4.70 GHz	1.40 GHz	25 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i9-12900T	Alder Lake	16	24	4.90 GHz	1.40 GHz	30 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i3-12100	Alder Lake	4	8	4.30 GHz	3.30 GHz	12 MB Intel® Smart Cache	65 W	DDR4	Intel® HD Graphics 730, 24EUs
Intel® Core™ i5-12500	Alder Lake	6	12	4.60 GHz	3.00 GHz	18 MB Intel® Smart Cache	65 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i3-13100T	Raptor Lake	4	8	4.10 GHz	2.20 GHz	12 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 730, 24EUs
Intel® Core™ i5-13500T	Raptor Lake	14	20	4.40 GHz	2.00 GHz	24 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i7-13700T	Raptor Lake	16	24	4.70 GHz	1.40 GHz	30 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i9-13900T	Raptor Lake	24	32	4.90 GHz	1.40 GHz	36 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i3-13100	Raptor Lake	4	8	4.30 GHz	3.30 GHz	12 MB Intel® Smart Cache	65 W	DDR4	Intel® HD Graphics 730, 24EUs
Intel® Core™ i3-14100T	Raptor Lake	4	8	4.40 GHz	2.70 GHz	12 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 730, 24EUs
Intel® Core™ i5-14500T	Raptor Lake	14	20	4.80 GHz	1.70 GHz	24 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i7-14700T	Raptor Lake	20	28	5.20 GHz	1.30 GHz	33 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i9-14900T	Raptor Lake	24	32	5.50 GHz	1.10 GHz	36 MB Intel® Smart Cache	35 W	DDR4	Intel® HD Graphics 770, 32EUs
Intel® Core™ i3-14100	Raptor Lake	4	8	4.70 GHz	3.50 GHz	12 MB Intel® Smart Cache	65 W	DDR4	Intel® HD Graphics 730, 24EUs

All products and company name listed are trademarks or trade names of their respective companies.

!! Note: For more interface configuration or available processors, please consult the sales.

Optional accessories or internal modules for unit

Optional Items	Max Qty	Description
Isolated 8-bit GPIO, 9-24V	1	Phoenix Terminal connector, connected by header
Isolated 8-bit GPIO with current loading, 9-26V	1	Digital signal, Phoenix Terminal connector, connected by non-standard M.2 interface
4G Module	1	Connected by Mini-PCIe interface
WiFi Module without AP mode	1	Connected by Mini-PCIe interface, M.2 interface or internal USB interface
WiFi Module with AP mode	1	Connected by Mini-PCIe interface
Dual channel CAN-Bus Module	2	Connected by Mini-PCIe or M.2 interface
AI computing power acceleration modules	1	Supported frameworks: TensorFlow, TensorFlow Lite, ONNX, Keras, PyTorch
Dual GbE PoE LAN Module	1	Connected by Mini-PCIe Interface

!! Note: As this product has expansion slots, please consult sales for the specific maximum number of expandable interfaces.