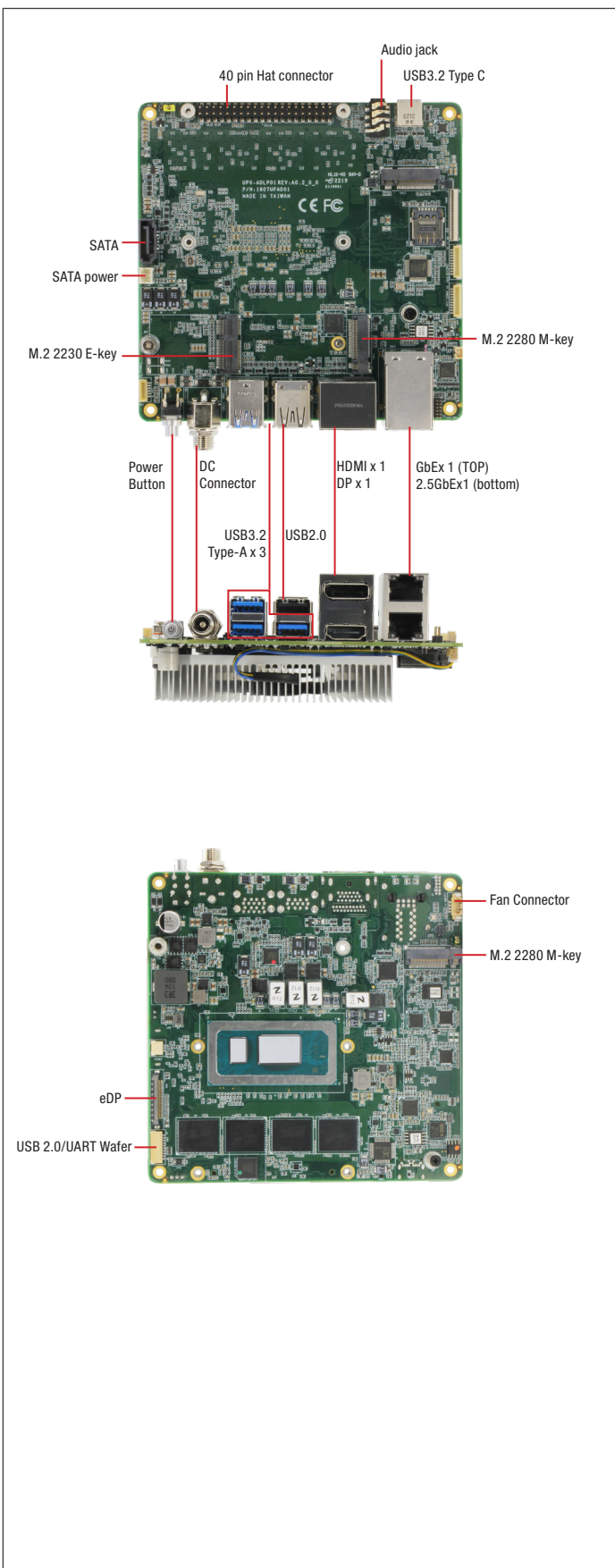


# UP Xtreme i12

UP Xtreme i12 developer board with 12th generation Intel® Core™ i7/i5/i3/Celeron® Processor SoC (Alder Lake-P)

UP Boards



## Features

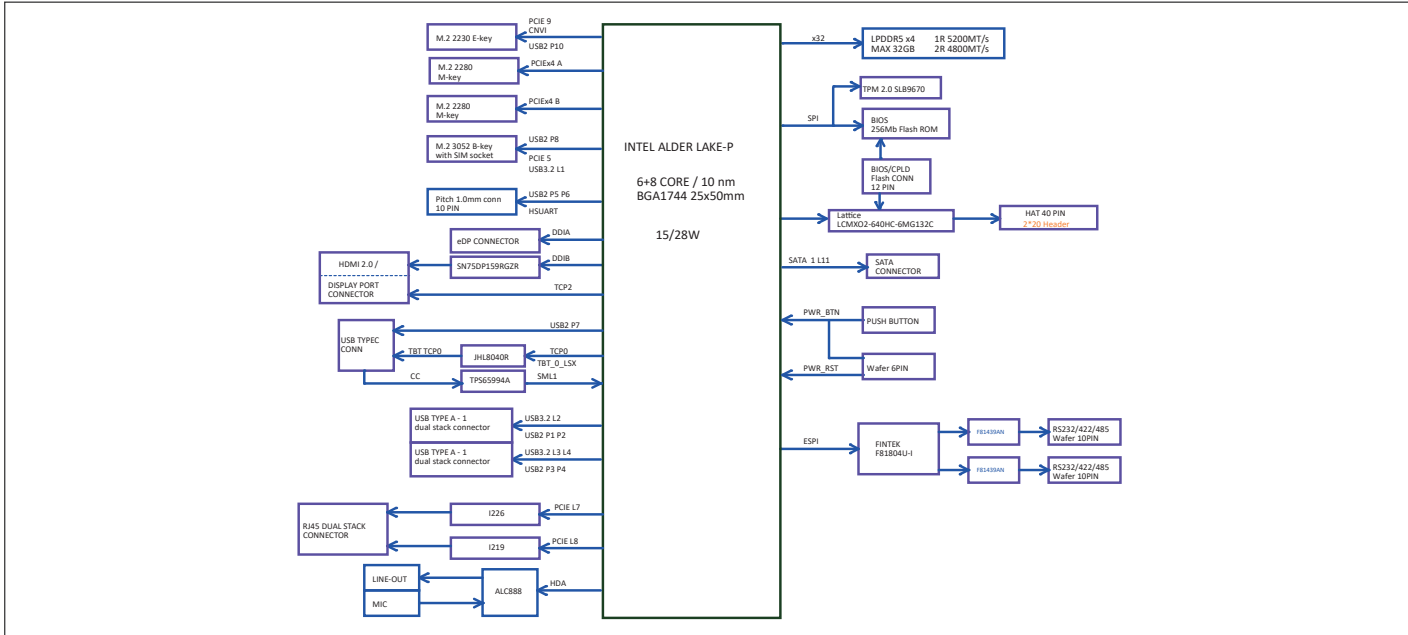
- 12th generation Intel® Core™ i7/i5/i3/Celeron® Processor SoC
- On board Dual Channel LPDDR5 up to 16GB
- Support 4 independent Displays up to 4K at 60Ghz
- Support 2 x M.2 2280 KEY M (PCIe Gen4)
- Support 5G via M.2 3052
- Support Intel AX210 WiFi 6
- TPM2.0
- 40pin HAT connector



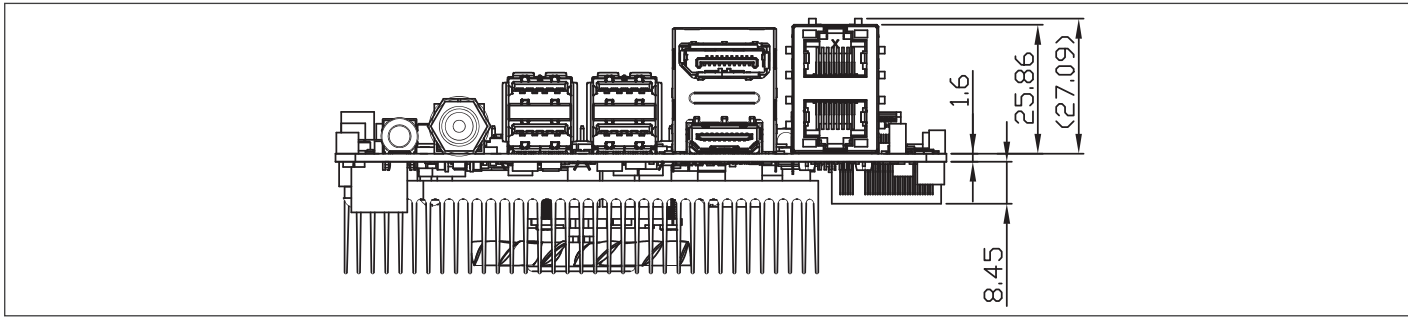
## Specifications

System	
Processor	12th Gen Intel® Core™ Processor SoC Core i7-1270PE Core i5-1250PE Core i3-1220PE Celeron® 7305E
Graphics	Intel® Iris® Xe graphics
Memory	Up to 16GB on board LPDDR5 4800MHz (Dual Channel)
Storage	M.2 2280 (PCIe Gen4.0x2) M-key x 2 SATA3 x 1
I/O	10-pin USB 2.0 x 2 / HSUART x 1 4pin Fan Connector x 1 6pin Front Panel Header x 1 10-pin RS232/422/485 Pin Header x 2 DC Connector x 1 Power Button/LED x 1
Camera	—
USB	USB 2.0 x 2 ( from wafer x 1), USB2.0 Type A x 1 USB 3.2 Gen 2 Type A x 3 USB 3.2 Gen 1 Type C x 1
Expansion	40 pin GPIO x 1 M.2 2230 E-key x 1 M.2 2280 (PCIe Gen4.0x2) M-key x 2 SATA3 x 1 M.2 3052 B-key x 1 Micro SIM slot x 1
Display Interface	HDMI 2.0b x 1 DP 1.4a x 1 DP 1.4b via USB type C x 1 eDP1.4b x 1
Ethernet	Intel® i226IT x 1, Intel® i219 (vPRO) x 1
Security	TPM 2.0
RTC	Yes
OS Support	Windows® 10 Enterprise 2021 LTSC Ubuntu 22.04 Yocto (TBD)
Power Requirement	
Power	12-36V DC input (AT/ATX mode)
POWER SUPPLY TYPE	Lockable
POWER CONSUMPTION (TYPICAL)	Intel® Core™ i7-1270PE, LPDDR5 4800MHz 16GB, 5.86A@+ 12V (Typical) Intel® Core™ i7-1270PE, LPDDR5 4800MHz 16GB, 8.05A@+ 12V (Max)
Mechanical	
Dimension	120.35 x 122.5 mm
Net Weight	389gm
Gross Weight	604gm
Environment	
Operating Temperature	With Heatsink: 32°F ~ 140°F (0°C ~ 60°) / 0.5 airflow
Operation Humidity	0% ~ 90% relative humidity, non-condensing
MTBF	362,068 Hours
Certification	CE/FCC Class A, RoHS Compliant, REACH

## Block Diagram



## Dimension Unit: mm



## Ordering Information

Part Number	CPU	Core	LAN	Memory	USB	RS-232/422/485	Expansion Slot	Display	Power	Operation Temp
UPX-ADLP17-A10-1600	Intel Core i7-1270PE	4	GbE x 2 (Intel i226 IT up to 2.5Gbps, Intel i219 up to 1Gbps)	16GB	USB 3.2 Gen 2 Type A x 3 USB 2.0 Type A x 1 USB 2.0 x 2 via wafer USB3.2 Gen1 Type C x 1	2	M.2 2280 M key x 2, M.2 2230 E key x 1 M.2 3052 B key x 1, 40pin HAT x 1, SATA 3 x 1	HDMI, DP, eDP, DP via USB type C	12-36V	32°F ~140°F (0°C ~ 60°C)
UPX-ADLP15-A10-1600	Intel Core i5-1250PE	4	GbE x 2 (Intel i226 IT up to 2.5Gbps, Intel i219 up to 1Gbps)	16GB	USB 3.2 Gen 2 Type A x 3 USB 2.0 Type A x 1 USB 2.0 x 2 via wafer USB3.2 Gen1 Type C x 1	2	M.2 2280 M key x 2, M.2 2230 E key x 1 M.2 3052 B key x 1, 40pin HAT x 1, SATA 3 x 1	HDMI, DP, eDP, DP via USB type C	12-36V	32°F ~140°F (0°C ~ 60°C)
UPX-ADLP13-A10-0800	Intel Core i3-1220PE	2	GbE x 2 (Intel i226 IT up to 2.5Gbps, Intel i219 up to 1Gbps)	8GB	USB 3.2 Gen 2 Type A x 3 USB 2.0 Type A x 1 USB 2.0 x 2 via wafer USB3.2 Gen1 Type C x 1	2	M.2 2280 M key x 2, M.2 2230 E key x 1 M.2 3052 B key x 1, 40pin HAT x 1, SATA 3 x 1	HDMI, DP, eDP, DP via USB type C	12-36V	32°F ~140°F (0°C ~ 60°C)
UPX-ADLPCR-A10-0800	Intel Celeron® 7305E	2	GbE x 2 (Intel i226 IT up to 2.5Gbps, Intel i219 up to 1Gbps)	8GB	USB 3.2 Gen 2 Type A x 3 USB 2.0 Type A x 1 USB 2.0 x 2 via wafer USB3.2 Gen1 Type C x 1	2	M.2 2280 M key x 2, M.2 2230 E key x 1 M.2 3052 B key x 1, 40pin HAT x 1, SATA 3 x 1	HDMI, DP, eDP, DP via USB type C	12-36V	32°F ~140°F (0°C ~ 60°C)

## Optional Accessories

Part Number	Description
9741364A00	Wireless LAN Kit M.2 2230 802.11ac/a/b/g/n + BT4.0,2T2R,with 2 sets of cable & antenna (Enli,QCNFA364A)
9651926001	(TF).M.2 2230 WiFi Kit.802.11ac.2.4G/5G,W/BT Intel.9260.NG.WG.NV,958867 w/2 cable & antenna
1702150155	Power Cable.15P SATA(F).2P 2.0mm, Housing(PH).15cm
1700070200	SATA CABLE.7P 180D(F) w/lock.to 7P 90D(F) w/o, lock SATA.20cm
1255X00071	(TF)AC/DC Adapter.Input 100V~240V.output DC 19V.120W.6.32A.DC JACK w/Lock. FSP.FSP120-ABAN3/9NA1208548
1702031802	(TF)POWER CORD.3P-125V 10A 180D.1.8M.USA.FANJET.YP12/YC-12
1702031803	(TF)POWER CORD.3P-250V 10A 180D.1.8M.VDE.FAN-JET.YP-22/YC-12
170203180E	(TF)Power cord.3P.125V/7A.1.8M.PSE YP12/YC12 Certificat

## Packing List

- UP Xtreme i12 with active heatsink