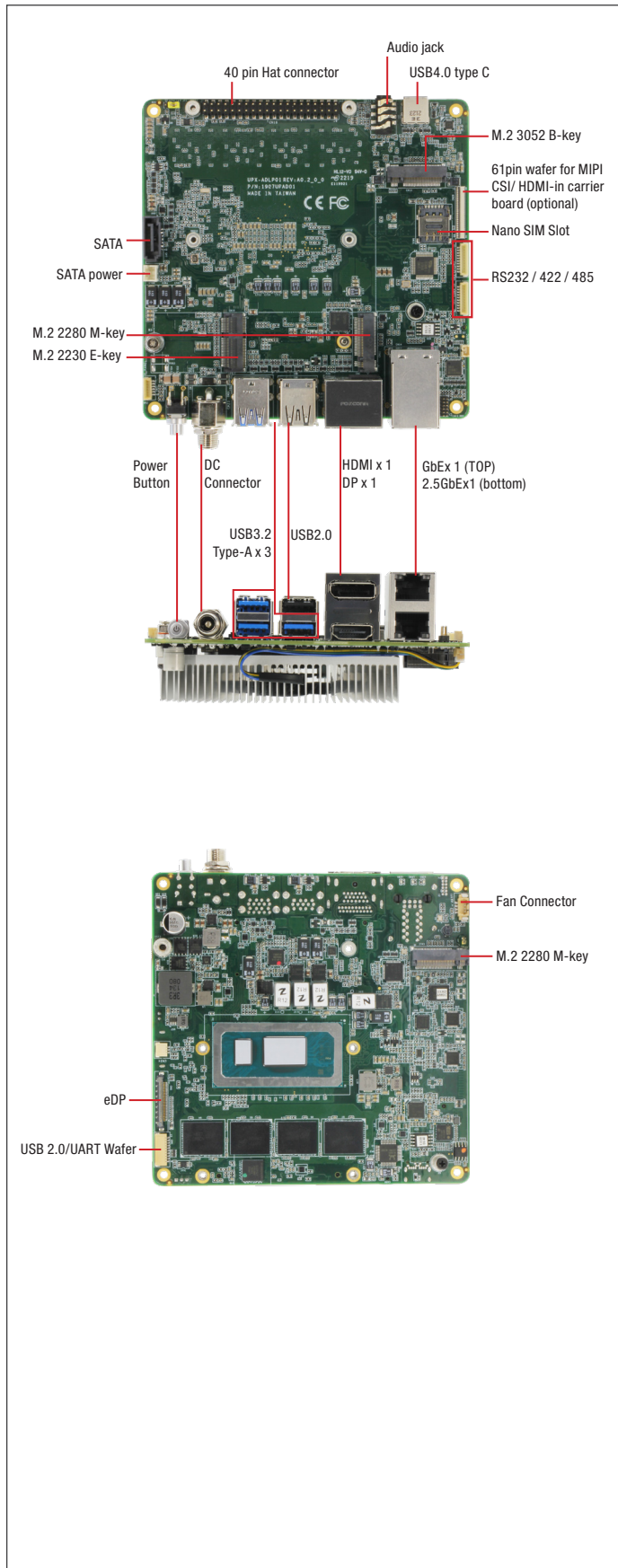


UP Xtreme i12

UP Xtreme i12 Developer Board with 12th/13th Generation Intel® Core™ i7/i5/i3/Celeron® Processor SoC



Features

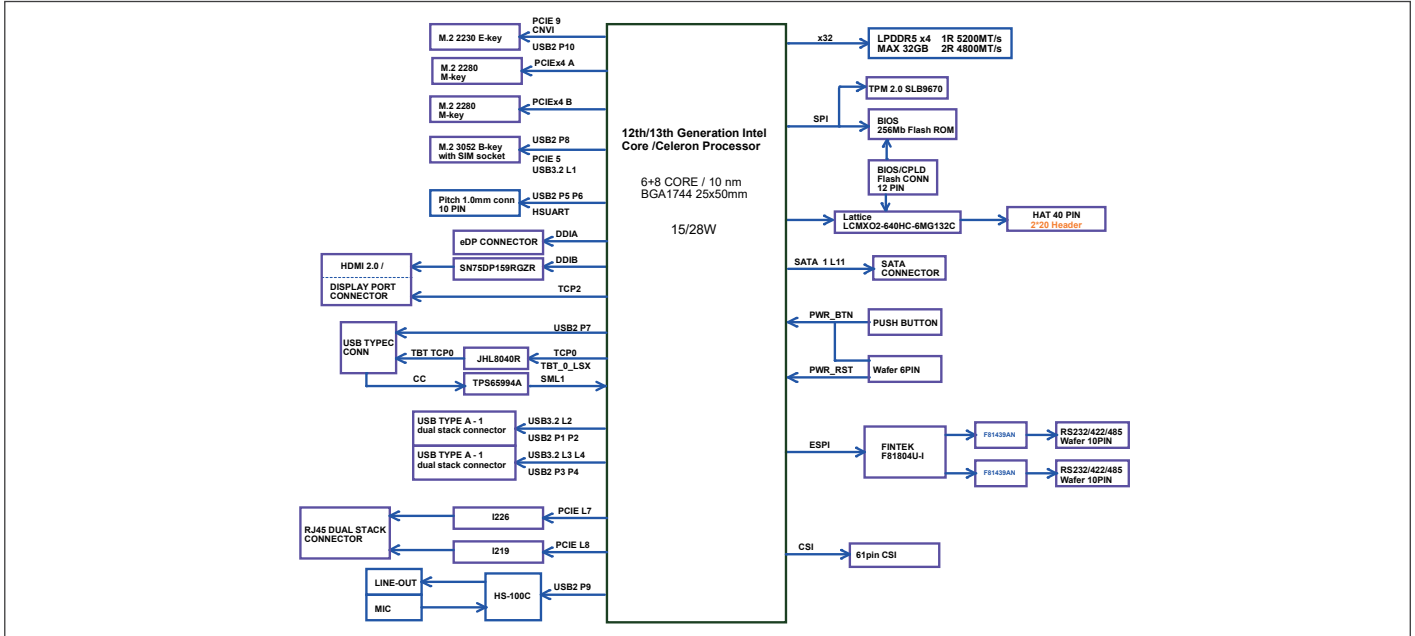
- 12th/13th Gen Intel® Core™ i7/i5/i3/Celeron® Processor SoC
- Onboard Dual Channel LPDDR5, up to 32GB
- 4 Independent Displays up to 4K at 60Ghz
- M.2 2280 M-Key x 2 (PCIe Gen 4 [x4])
- M.2 3052 B-Key (5G)
- Intel® Wi-Fi 6E AX210 Support
- TPM 2.0
- 40-pin HAT Connector
- USB 4.0 (Type-C)
- LAN x 2 (2.5GbE x 1, GbE x 1)
- Support for MIPI CSI/HDMI-in via 61-pin wafer (optional for 13th Gen SKUs)



Specifications

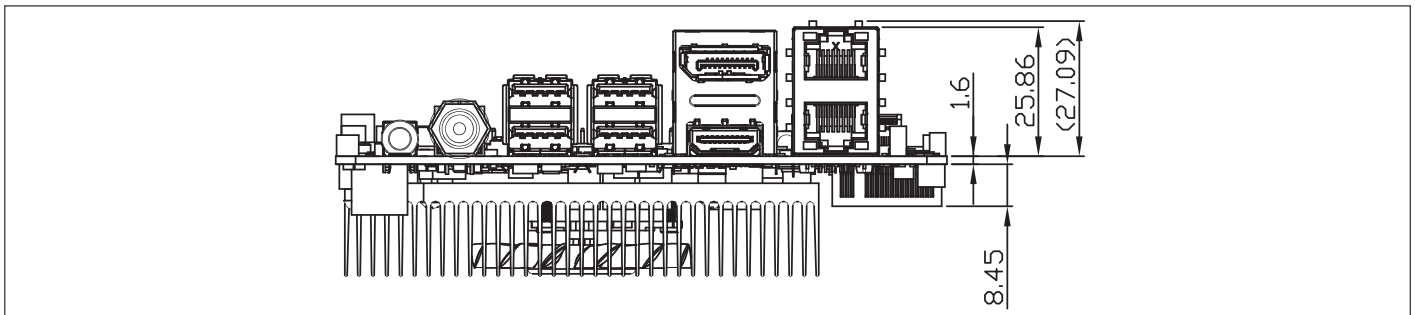
System	
Processor	12th Gen Intel® Core™ Processor SoC Intel® Core™ i7-1270PE Intel® Core™ i7-1260P Intel® Core™ i5-1250PE Intel® Core™ i5-1240P Intel® Core™ i3-1220PE Intel® Celeron® Processor 7305E 13th Gen Intel® Core™ Processor SoC Intel® Core™ i7-1370PE Intel® Core™ i7-1360P Intel® Core™ i5-1340PE Intel® Core™ i3-1320PE
Graphics	Intel® Iris® Xe graphics
Memory	Up to 32GB onboard LPDDR5
Storage	M.2 2280 M-Key x 2 (PCIe Gen 4.0 [x4]), SATA 6Gb/s x 1
I/O	HDMI 2.0b x 1 DP 1.4a x 1 DP 1.4a x 1 (via USB Type-C) eDP 1.4b x 1 Audio Jack x 1 (Mic-in+Line-out) RS-232/422/485 10-pin header x 2
Camera	MIPI CSI camera via 61pin wafer w/carrier board (optional for 13th Gen) HDMI-in via 61pin wafer w/carrier board (optional for 13th Gen)
USB	USB 2.0 x 2 (from 10 pin header x 1) USB 2.0 (Type-A) x 1 USB 3.2 Gen 2 (Type-A) x 3 USB 4.0 (Type-C) x 1
Expansion	40-pin GPIO x 1 M.2 2230 E-Key x 1 M.2 2280 M-Key x 2 (PCIe Gen 4.0 [x4]) SATA 6Gb/s x 1 M.2 3052 B-Key x 1 Nano SIM Slot x 1
Display Interface	HDMI 2.0b x 1, DP 1.4a x 1, DP 1.4a x 1 (via USB Type-C), eDP 1.4b x 1
Ethernet	Intel® I226-IT x 1 (TSN), Intel® I219 x 1 (vPRO)
Security	Onboard TPM 2.0
RTC	Yes
OS Support	Windows® 10 Enterprise 2021 LTSC, Ubuntu 22.04, Yocto 4.0
Power Requirement	
Power	12-36V DC-in (Lockable plug)
Power Supply Type	AT/ATX (ATX as default)
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	4.74" x 4.82" (120.35mm x 122.5mm)
Net Weight	0.88lb (0.4kg)
Gross Weight	1.32lb (0.6kg)
Environment	
Operating Temperature	With Heatsink: 32°F ~ 140°F (0°C ~ 60°C) / 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



Packing List

- UP Xtreme i12 with active heatsink

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,OCNFA364A)
9651926001	(TF).M.2 2230 WiFi Kit.802.11ac.2.4G/5G,W/BT Intel.9260.NGWG.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.U.S.A.FAN.JET.YP12/YC-12
1702031803	(TF)POWER CORD.3P-250V 10A 180D.1.8M.V.D.E.FAN-JET.YP-22/YC-12
170203180E	(TF)Power cord.3P.125V/7A.1.8M.P.S.E YP12/YC12 Certificat
9651210000	Wireless LAN Kit M.2 2230 802.11ac/a/b/g/n + BT5.2,2.4G/5G/6G,with 2 sets of cable & antenna (Intel AX210)
UPCR-CAMB-A10-0001	MIPI CSI Camera RVP Converter kit for UP Squared Pro 7000/UP Squared i12.REV.A1.0
UPCR-HDMI-A10-0001	HDMI IN carrier board for UPS i12, UPN 7000, UPX i12.REV.A1.0

Ordering Information

Part Number	CPU	CORE	MEMORY	HEATSINK
UPX-ADLPCR-A10-0800	Intel® Celeron® Processor 7305E	1P+4E	8GB	FAN
UPX-ADLP13-A10-0800	Intel® Core™ i3-1220PE	4P+4E	8GB	FAN
UPX-ADLP15-A10-1600	Intel® Core™ i5-1250PE	4P+8E	16GB	FAN
UPX-ADLP17-A10-1600	Intel® Core™ i7-1270PE	4P+8E	16GB	FAN
UPX-ADLP15C-A10-1600	Intel® Core™ i5-1240P	4P+8E	16GB	FAN
UPX-ADLP17C-A10-1600	Intel® Core™ i7-1260P	4P+8E	16GB	FAN
UPX-RAP13-A11-0800	Intel® Core™ i3-1320PE	4P+4E	8GB	FAN
UPX-RAP15-A11-1600	Intel® Core™ i5-1340PE	4P+8E	16GB	FAN
UPX-RAP17-A11-1600	Intel® Core™ i7-1370PE	4P+8E	16GB	FAN
UPX-RAP17C-A11-1600	Intel® Core™ i7-1360P	4P+8E	16GB	FAN