



Features

- Open Robotic system
- Intel® Core™ Ultra Processors Series 3 (formerly Panther Lake)
- 137mm x 135mm x 65mm
- 22-pin GPIO
- GMSL x 2 (up to 8 Channels)

Specifications

System	
Form Factor	Open Robotic system
CPU	Intel® Core™ Ultra Processors Series 3 (formerly Panther Lake); Intel® Core™ Ultra X7 358H (16C, up to 4.8 GHz)
Chipset	Integrated with Intel® SoC
Memory Type	Onboard LPDDR5 8533MT/s, up to 64GB
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Security	TPM 2.0
RTC Battery	Lithium Battery 3V/240mAh
Dimensions	5.39" x 5.3" x 2.55" (137mm x 135mm x 65mm)
OS Support	Windows® 11 (64-bit), Ubuntu 25.04 or 24.04 and later
Power	
Power Requirement	19V - 24V
Power Supply Type	AT mode
Connector	4-pin DIN Plug
Power Consumption	200W - 250W
Display	
Controller	Intel® Arc™ B390
LVDS/eDP	—
Display Interface	HDMI 1.4 x 1, up to 3840 x 2160 @30Hz DP 1.2 x 1, up to 3840 x 2160 @144Hz
Multiple Display	Up to 2 Simultaneous Displays
Audio	
Codec	Realtek® ALC897
Audio Interface	3.5mm jack, Line-Out, Mic-in
Speaker	5W speaker, 2-pin header
External I/O	
Ethernet	Intel® Ethernet Controller I226-V, 2.5GbE x 4
USB	USB 3.2 Gen 1 (Type-C) x 4 USB 2.0 (Type A) x 2 Micro USB 2.0 x 1
Serial Port	—
Video	HDMI 1.4 x 1 DP 1.2 x 1
Others	CANBus x 1 GMSL x 2 (FAKRA connector), up to 8 channels.
Internal I/O	
USB	—
Serial Port	RS-232/422/485 x 2
Video	—
SATA	—

Audio	Line out/Mic
DIO/GPIO	22-bit GPIO via HAT 40
SMBus/I2C	—
Touch	—
Fan	Fanless
SIM	SIM Card Socket x 1
Front Panel	—
Others	MISC Header MIPI CSI x 2
Expansion	
Mini PCIe/mSATA	—
M.2	M.2 2280 B-Key x 1 (PCIe [x2]) M.2 2280 M-Key x 1 (PCIe Gen 5 [x4]) M.2 2230 E-Key x 1 (Wifi/BT)
Others	—
Environment & Certification	
Operating Temp.	System Level: -14°F – 122°F (0°C – 50°C) with 0.7m/sec air flow
Storage Temp.	-40°F – 185°F (-40°C – 85°C)
Operating Humidity	0% – 95% relative humidity, non-condensing
MTBF (Hours)	TBD
Shock	IEC 60068-2-27 10G peak acceleration (11 m sec. duration), operation 20G peak acceleration (11 m sec. duration), non-operation
Vibration	IEC 60068-2-24, 5-500Hz; 2grms
Drop	ISTA PROJECT 1A (with Packing box)
Altitude	3000m (TBD)
EMC	CE/FCC Class A

Packing List

Part Number	Description	QTY
CEXD-INTRBL	CEXD-INTRBL	1

Optional Accessories

Part Number	Description	QTY
Power Adapter	EDAC.EA12521K-2400.250W	1

Ordering Information

- CEXD-INTRBL01-A10-0001