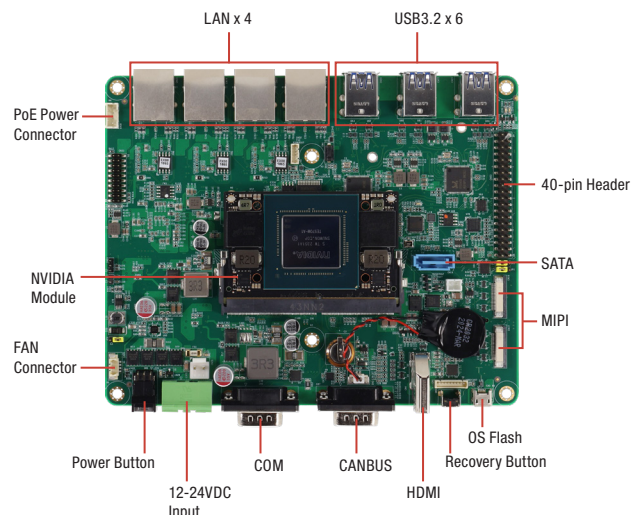


BOXER-8654AI-KIT

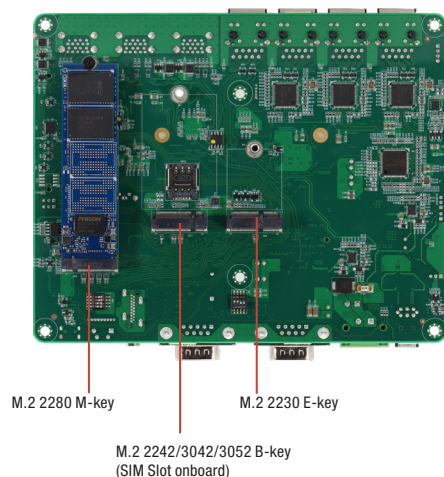
AI@Edge Embedded board with NVIDIA® Jetson Orin™ NX



Front View



Rear View



Features

- NVIDIA® Jetson Orin™ NX
- MIPI connector x 2
- M.2 2230 E-Key x 1, M.2 2280 M-Key x 1, M.2 3052 B-Key x 1
- 40-pin Header compliant with NVIDIA Jetson Orin Nano Developer Kit
- PoE Connector, FAN connector
- 12V ~ 24V Wide Power DC Input
- TPM 2.0 Support (by Jumper select)



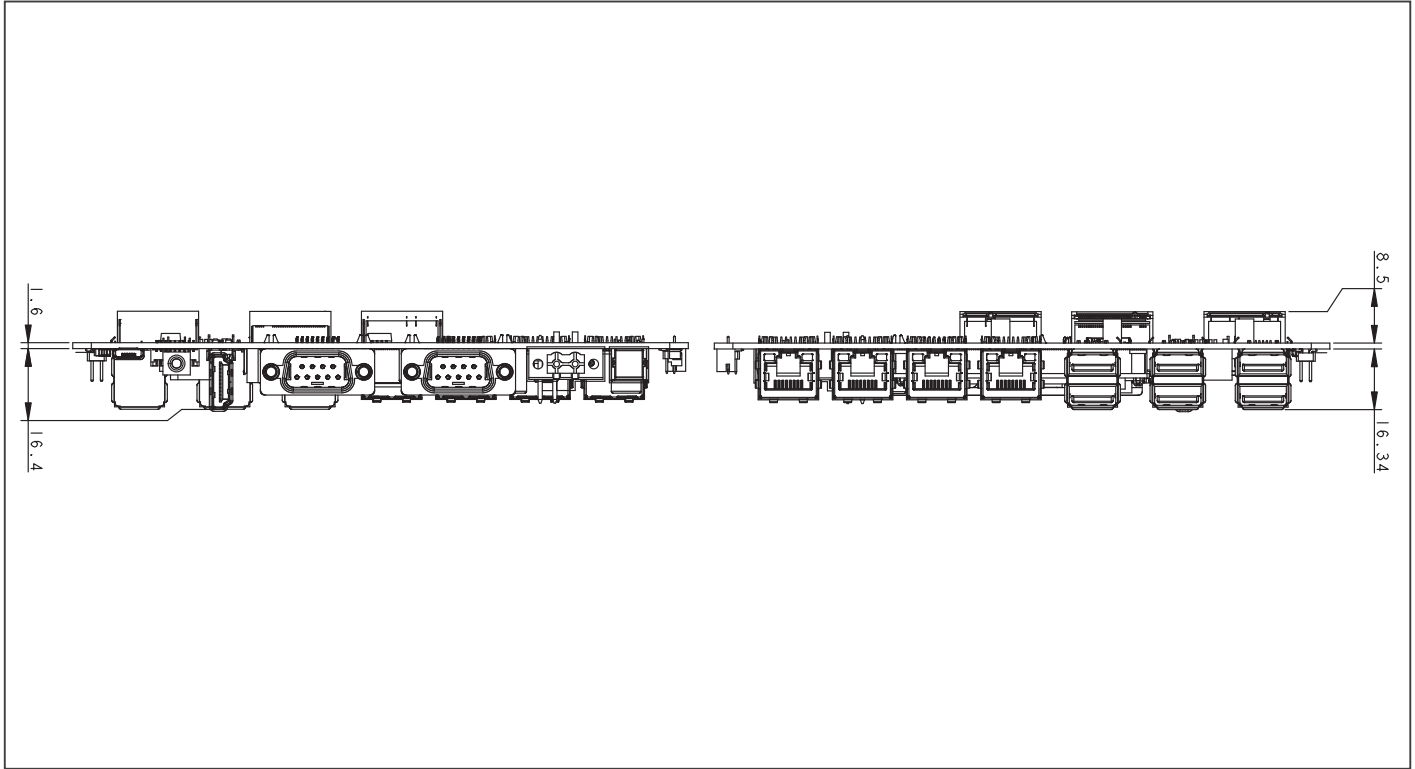
Specifications

System	
AI Accelerator	NVIDIA® Jetson Orin™ NX
CPU	Orin NX 16GB: 8-core Arm® Cortex®-A78AE ARMv8.2 64-bit CPU Orin NX 8GB: 6-core Arm® Cortex®-A78AE ARMv8.2 64-bit CPU
System Memory	16GB LPDDR5 8GB LPDDR5
Storage Device	M.2 M-Key 2280 x 1 (NVMe)
Display Interface	HDMI Type A for HDMI 1.4 x 1
Ethernet	RJ-45 x 4 for GbE LAN (optional: power module for PoE (25.6W each port))
I/O	MIPI Connector x 2 (4 lanes for each MIPI connector, Default IMX219) DB-9 x 1 for RS-232(RX/TX/GND)/422/485 DB-9 x 1 for CANBus USB Type A x 6 for USB 3.2 Gen 2 Micro USB for image flash x 1 Power Button with LED Indicator x 1 2-pin Phoenix Type x 1 for Power Input Recovery Button x 1 40-pin Header compliant with NVIDIA Jetson Orin Nano Developer Kit Pin Header x 1 for RS/232/422/485 by jump select UART to 40-pin Box Header x 1 for OOB SATA Connector x 1 SATA power Connector x 1
Expansion	M.2 2230 E-Key x 1 M.2 2242/3042/3052 B-Key x 1 (SIM onboard) M.2 2280 M-Key x 1
Indicator	Power LED x 1
OS Support	Linux (NVIDIA Jetpack™ 6.0 and above)
Power Supply	
Power Requirement	12V ~ 24V DC in with 2-pin Terminal Block x 1
Mechanical	
Mounting	—
Dimensions (W x D x H)	6.53" x 5.24" (166mm x 133mm)
Gross Weight	0.79 lbs (0.36 Kg)
Net Weight	0.42 lbs (0.19 Kg)
Environmental	
Operating Temperature	-13°F ~ 158°F (-25°C ~ 70°C) w/ Fan Kit, according to IEC60068-2 with 0.5 m/s AirFlow
Storage Temperature	-40°F ~ 185°F (-40°C ~ 85°C)
Storage Humidity	5 ~ 95% @ 40°C, non-condensing
Anti-Vibration	—
Anti-Shock	—
Certification	CE / FCC class A



Dimension

Unit: mm



Ordering Information

Part Number	AI Solution	LAN	USB 3.2 Gen 2	COM	CANBus	Storage	Display	Expansion	Power
BOXER-8654AI-KIT-JP600N-A1-1010	NVIDIA® Jetson Orin™ NX 8GB	4	6	1	1	M.2 M Key 2280 NVME x 1 (Default: 128GB)	HDMI x 1	M.2 2230 E-Key x 1 M.2 2242/3042/3052 B-Key x 1 (SIM onboard) M.2 2280 M-Key x 1	DC 12~24V
BOXER-8654AI-KIT-JP600N-A2-1010	NVIDIA® Jetson Orin™ NX 16GB	4	6	1	1	M.2 M Key 2280 NVME x 1 (Default: 128GB)	HDMI x 1	M.2 2230 E-Key x 1 M.2 2242/3042/3052 B-Key x 1 (SIM onboard) M.2 2280 M-Key x 1	DC 12~24V

Packing List

- BOXER-8654AI-KIT x 1
- Power Connector x 1
- Screw Package x 1

Optional Accessories

- 1255X00066
120W Power Adapter
- 170X000799
Power Cord (US type)
- 170X000800
Power Cord (European Type)
- 170X000803
Power Cord (Japanese Type)
- 9641865400
Cooler Fan Kit
- 9641865401
Heat Spreader Kit
- 9641865402
Top Heat Sink with Heat Spreader Kit