BOXER-8649AI PRELIMINARY

AI@Edge Fanless Embedded AI System Powered by NVIDIA® Jetson AGX Orin™

Front View



Rear View



Features

- NVIDIA® Jetson AGX Orin™
- GMSL2 with FAKRA Connectors x 8
- M12 X-code 10GbE / GbE / USB
- M12 A-code RS-232/422/485 / CAN FD / DIO
- M.2 Expension for NVMe, 5G, Wi-Fi/BT, dual SIM, OOB
- 9V- 48V, built-in ignition power control
- MIL-STD-810H vibration/shock, –25°C to 60°C

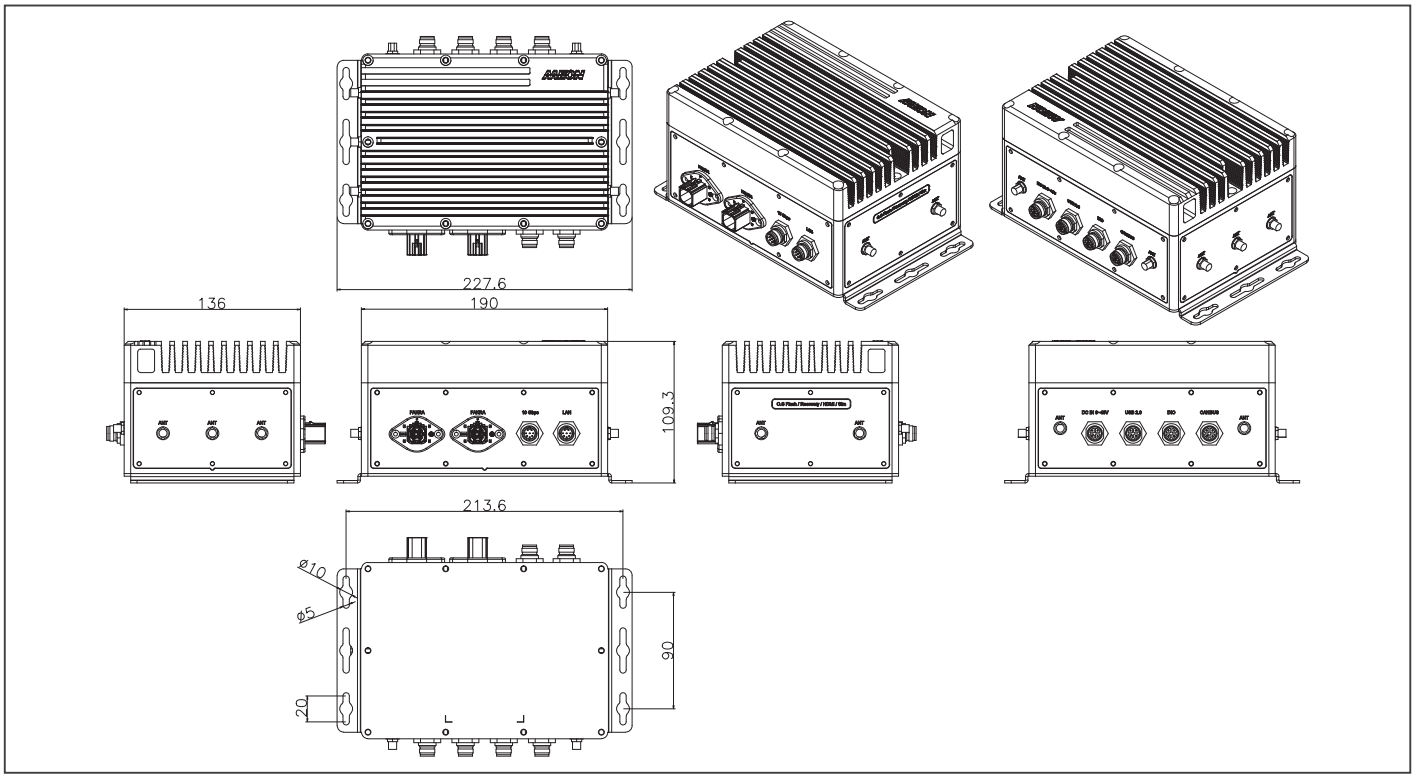
Specifications

System	
AI Accelerator	NVIDIA® Jetson AGX Orin™
CPU	AGX Orin 32GB: 8-core Arm® Cortex®-A78AE CPU AGX Orin 64GB: 12-core Arm® Cortex®-A78AE CPU
System Memory	32GB LPDDR5 64GB LPDDR5
Storage Device	M.2 2280 M-Key x 1 for NVMe M.2 2230 E-Key x 1 for WiFi/BT/NVMe
Display Interface	Mini HDMI 2.0 output (Inside waterproof cover)
Ethernet	M12 X code 8Pin x 1 for 10Gbps LAN M12 X code 8Pin x 1 for Giga LAN
I/O	Mini FAKRA B type x 1 for GMSL2 x 4, 2 sets M12 A code 8pin x 1 for USB 2.0 x2 M12 A code 12Pin x 1 for RS232 (Rx/Tx/CTS/RTS)/RS485 x 1 & CANBus FD x 2 M12 A code 12Pin x 1 for RS232 (Rx/Tx/CTS/RTS)/RS485 x 1, DIO x 3 External IP67 SMA antenna x 7 Micro USB for image flash x 1 (Inside waterproof cover) Recovery button x 1 (Inside waterproof cover)
Expansion	M.2 2280 M-Key x 1 for NVMe M.2 3042/3052 B-Key x 1 for 4G/5G (USB 3.0 + PCIe) M.2 2230 E-Key x 1 for WiFi/BT/NVMe SIM Slot x 2
Indicator	Power LED x 1 System LED x 1
OS Support	NVIDIA Jetpack 7.x and up
Power Supply	
Power Requirement	9V to 48V DC input and ignition power control via M12 A-code OVP, UVP, OCP, Short protection, Reverse protection, Surge protection
Mechanical	
Mounting	TBD
Dimensions (W x D x H)	7.48" x 5.35" x 4.30" (190mm x 136mm x 109.3mm)
Gross Weight	TBD
Net Weight	TBD
Environmental	
Operating Temperature	-13°F ~ 140°F (-25°C ~ 60°C), according to IEC 60068-2 with 0.7 m/s airflow
Storage Temperature	104°F ~ 185°F (40°C ~ 85°C), non-operation
Storage Humidity	5%~ 95% @ 40°C, non-condensing, non-operation
Anti-Vibration	MIL-STD-810H
Anti-Shock	MIL-STD-810H
Certification	CE/FCC class A

Note: All specifications are subject to change without notice.

Dimension

Unit: mm



Ordering Information

- TBD

Optional Accessories

- TBD

Packing List

- BOXER-8649AI x 1