

X6-MTH-ORN

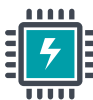
Nvidia Orin NX powered by Intel Core Ultra Processor
Edge AI Box

KEY FEATURES



Nvidia Edge AI engine

Nvidia ORIN NX up to 157 TOPS



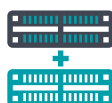
Hybrid Architecture

nVidia Jetson Orin NX enhanced by Intel Core Ultra processor



Remote BIOS update and OTA

Support Remote management by DFI OOB



Multiple Expansions

4 M.2 B, E, M key expansion slots



Rich I/O

Audio, COM ports, CAN bus, 8 USB 3.2, HDMI, VGA, PoE LANs



IoT Solutions Alliance

PANEL



Front View



Rear View

SPECIFICATION

SYSTEM	Processor	Intel® Core™ Ultra 7 155U (2 P-Cores x 1.7 GHz, 8 E-Cores x 1.2 GHz, 12 MB cache, 15W) / 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU Intel® Core™ Ultra 5 125U (2 P-Cores x 1.3 GHz, 8 E-Cores x 0.8 GHz, 12 MB cache, 15W) / 8-core Arm® Cortex®-A78AE v8.2 64-bit CPU
	Memory	Two 260-Pin SO-DIMM up to 64GB / nVidia Jetson Orin NX 16GB Dual Channel DDR5 5600MHz / nVidia Jetson Orin NX 16GB 128-bit LPDDR5
	BIOS	AMI SPI
GRAPHICS	Controller	Intel® Iris® Xe Graphics
	Feature	DX12, Open GL 4.6, Vulkan 1.2 HW Decode: HEVC/VP9/AV1/AVC/H.265/MJPEG HW Encode: HEVC/VP9/AV1/AVC/H.265/MJPEG
	Display	Stacked type VGA and HDMI from COMe eDP HDMI from Jetson module ITE IT6564FN DP HDMI/VGA converter from eDP
AI ACCELERATOR	Interface	Nvidia Orin NX, up to 157 TOPS (MAXN Super mode supported)
STORAGE	Internal	M.2 2242/2280 M key for Intel Core Ultra (NVMe) M.2 2242/2280 M key for Jetson module (NVMe)"
EXPANSION	Interface	Intel Core Ultra: 1 x M.2 Key E 2230 slot (USB 2 +PClex1 signal) for Wi-Fi 6E 1 x M.2 Key B 3042/3052 slot (USB3 signal) for 5G/LTE with Nano SIM 1 x M.2 2242/2280 M key (SATA 3and PCIe gen3 x1 for NVMe) Jetson Orin: 1 x M.2 Key E 2230 slot (USB 2 +PClex1 signal) for Wi-Fi 6E (or 1 x M.2 Key B 3042/3052 slot (USB3 signal) for 5G/LTE with Nano SIM) 1 x M.2 2242/2280 M key (SATA 3and PCIe gen3 x1 for NVMe)
ETHERNET	Controller	1 RJ45 GbE from Intel i210 2x2 stacked RJ45 GbE ports from 4x Intel i210 Optional 2x 15W PoE via X103-PE30-48 Hybrid architecture communication: internal GbE interface
LED	Indicators	1 x Power Status 1 x HDD activity
FRONT I/O	Ethernet	1 x GbE (Intel Core Ultra) 2x2 stacked RJ45 GbE (Jetson)
	USB	1 x GbE (Intel Core Ultra) 2x2 stacked RJ45 GbE (Jetson)
	Display	1 x VGA (Intel Core Ultra) 1 x HDMI port (Intel Core Ultra)
	DC in	1 x 2-pin power terminal block
REAR I/O	Serial	1 x DB-9 RS232 port (Intel Core Ultra) 1 combo DB-9 RS232/ CAN bus (Jetson)
	USB	1 x micro USB from Jetson module
	Display	2 x HDMI port
FLANK I/O	Antenna	6 x antenna holes
INTERNAL I/O	OOB	Support DFI OOB module
SECURITY	TPM	TPM 2.0 on Intel Core Ultra
POWER	Type	9-36V DC
	Connector	1x 2-pin terminal block
	RTC Battery	Rechargeable battery
OS SUPPORT	Microsoft	Windows 10, 11
	Linux	Ubuntu 22.04
MECHANISM	Construction	Aluminum + SGCC
	Mounting	Wall mount (mounting brackets and screws) DIN mount by optional
	Dimensions (W x H x D)	250 x 65 x 150 mm
	Weight	< 3.5 kg
ENVIRONMENT	Operating Temperature	-20°C to 60°C (sku dependent)
	Storage Temperature	-40°C to 85°C
	Relative Humidity	5 to 95% RH (non-condensing)
STANDARDS AND CERTIFICATIONS	Shock	Operation IEC 60068-2-27 Test Ea: Shock test Half-sine, 3G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times) Non- Operation IEC 60068-2-27 Test Ea: Shock test Half-sine, 5G @ 11ms, 18 Shock ±X, ±Y, ±Z (each axis 3 times)
	Vibration	Operation IEC 60068-2-64 Test Fh: Vibration board-band random test Random,2Grms @ 5~500 Hz, 30min. Non- Operation IEC 60068-2-6 Test Fc: Vibration Sinusoidal Test Sweep sine, 3Grms @ 10~500Hz, 30min.
	Certification	CE, FCC Class A, RoHS, UKCA
	IP Rating	IP20