WNAI-E600

Edge AI Computer with NVIDIA® Jetson AGX Orin™

KEY FEATURES

- NVIDIA® Jetson AGX Orin™ (Up to 275TOPS)
- 1 x 10G LAN, 1 x Giga LAN
- 8 x GMSL2 with FAKRA Connectors
- 4 x GigE LAN with PoE
- 1 x Isolated 8-in/8-out DIO
- Wide Range 9V to 36V DC Power Input with Isolation
- Fanless, streamlined enclosure for highly efficient heat Dissipation

INTRODUCTION

The Winmate WNAI-E600 is a rugged Edge AI Box PC powered by the NVIDIA® Jetson AGX Orin™ module, delivering up to 275 TOPS of superior AI performance. Designed for harsh environments, it features a fanless enclosure, MIL-STD-810H shock and vibration resistance, and E-mark certification for vehicle integration. With support for optional 8x GMSL2 cameras and wide voltage input with ACC ignition control, it is the ideal solution for smart transportation and Industrial automation.

SPECIFICATIONS

System Specification

Processor	NVIDIA® Jetson AGX Orin™ AGX Orin 32GB: 8core Arm® Cortex®A78AE CPU (Default) AGX Orin 64GB: 12core Arm® Cortex®A78AE CPU (Optional)	**Memory**	AGX Orin 32GB: 32GB 256bit LPDDR5 204.8GB/s (Default) AGX Orin 64GB: 64GB 256bit LPDDR5 204.8GB/s (Optional)
Storage	1 x 64GB eMMC 5.1 (Default) 2 x M.2 2280 Mkey NVMe SSD (Max 4 TB)(When the PoE function is enabled, only one 1 x SSD is supported) (Optional) 1 x MicroSD (Max 512GB) (Optional) 1 x 2.5" SSD/HDD (Optional)	**Ethernet controller**	1 x 10Gbe LAN 1 x Giga LAN (Default) 4 x LAN support PSE IEEE 802.3af (Optional)
Security	TPM 2.0	**Operating System**	Linux (Support NVIDIA Jetpack 6.2)
WLAN	Support (Optional)	**BT**	Support (Optional)
WWAN	Support (Optional)	**GPS**	Support (Optional)
Expansion Port	1 x M.2 2230 E-key Slot (for WiFi+BT) 1 x M.2 3042/3052 B-key Slot (for 4G/5G)		

Mechanical

Dimension	250 x 170 x 91.5 mm	**Mounting**	Desk Mount
Enclosure	Metal Housing	**Cooling System**	Fanless Design

Environment

Operating Humidity	10% to 90% RH, Non-Condensing	**Operating Temperature**	30W TDP Mode: 0°C to 60°C (32°F to 140°F) 40/50W TDP Mode: 0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 60°C		

Certification

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Revised:V.260210.260213

Certification	CE, FCC

IO Ports

Power Input	1 x Isolated 9~36V DC with 3-Pin Terminal Block	**USB Port**	4 x USB 3.2 Gen 2 (Type-A) 2 x USB2.0 (wafer) 1 x Micro USB for debug port 1 x USB Type-C for OS flash
Serial Port	2 x DB9 for RS232(Rx/Tx/CTS/RTS)/RS422/RS485	**SD Card Slot**	1 x MicroSD Slot(Max 512GB)
SIM Card Slot	2 x nano SIM Card slot	**Video**	1 x HDMI 2.0b , Max resolution up to 3840x2160@30Hz (Optional)
Expansion Port	1 x M.2 2230 E-key Slot (for WiFi+BT) 1 x M.2 3042/3052 B-key Slot (for 4G/5G)	**LAN**	1 x RJ45 for 10Gbe LAN 1 x RJ45 for Giga LAN (Default) 4 x RJ45 for GbE PoE 802.3af(PSE) (This function is mutually exclusive with GMSL) (Optional)
Indicator	1 x LED Indicator for power 1 x LED Indicator for SDD	**DIDO**	1 x Isolated 8in/8out DIO with 20-Pin Terminal block : 8 x Digital input channels with 2500 VDC isolation protection - Wet contact: Logic 0: 2 ~ 30 VDC/ Logic 1: 0 ~ 1 VDC - Dry contact: Logic 0: Shorted to GND/ Logic 1: Open 8 x Digital output channels - Output voltage: 5 ~ 30 VDC - Output capability sink: 500 mA ax./channel
CANBUS	1 x DB9 for 2 Isolated CAN Bus support CAN FD	**GMSL**	8 x GMSL2 with FAKRAZ (This function is mutually exclusive with POE) (Optional)

Control

Button	1 x Power Button 1 x Recovery Button 1 x Reset Button

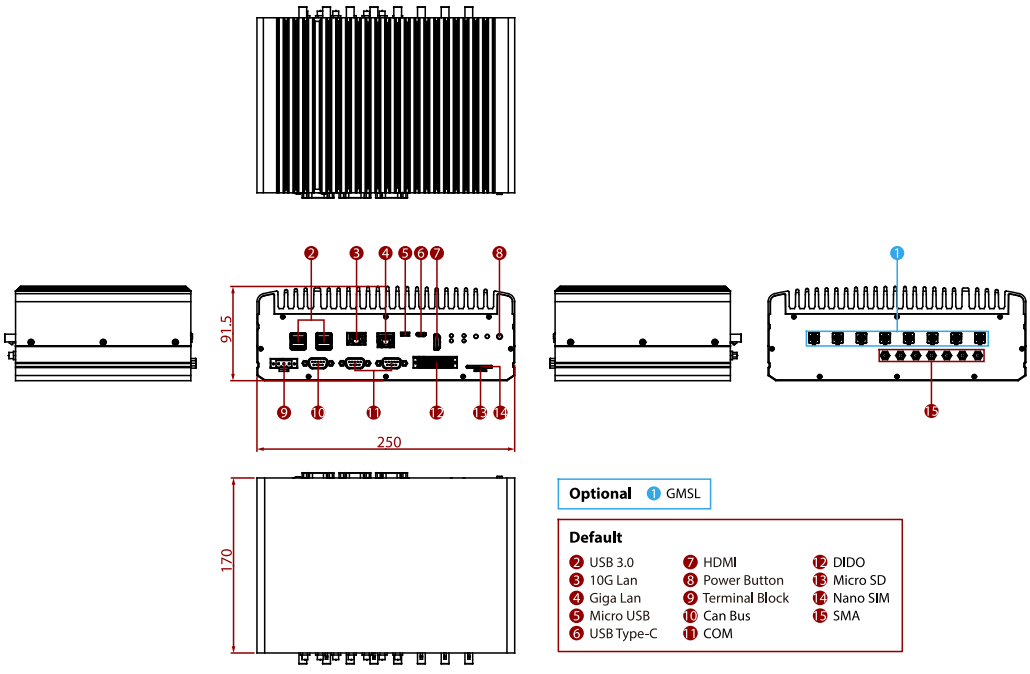
Accessory

Accessory	1 x Terminal Block 3-pin connector for Power 1 x Terminal Block 20-pin connector for DIDO 1 x Open Wire Cable Dest Mount Screws

Power

Power Rating	9V to 36V DC	**POE**	PoE (PSE): follows IEEE 802.3af (15W)

DIMENSIONS UNIT:MM



NOTE

1. This is a simplified drawin,g and some components are not marked in detail.
2. Please contact our sales representative if you need further product information.
3. All specifications are subject to change without prior notice.
4. The product shown in this datasheet is a standard model. For diagrams that contain customized or optional I/ O, please contact the Winmate Sales Team for more information.