NTDRW100

AI DIN Rail Box PC with NVIDIA® Jetson Orin™ Nano

KEY FEATURES

- NVIDIA® Jetson Orin™ Nano (up to 67 TOPS)
- 3 x 1 Giga LAN, 1 x 1 Giga LAN with PSE (up to 30 watts of power)
- 4 x USB 3.2 Gen 2x1, 1 x USB2.0, 3 x COM, 1 x CAN
- Isolated DIO (8-in/8-out)
- Wide Range 9V to 36V DC Power Input with Isolation
- Wide Operating Temperature range from -20°C to +60°C
- DIN-Rail type Edge Computing

INTRODUCTION

Winmate DIN Rail Edge AI Computing empowers industries with advanced AIoT capabilities by combining powerful processors, integrated AI acceleration, and robust connectivity. Designed for diverse applications such as manufacturing, healthcare, and smart cities, it supports seamless cloud integration and AI-assisted analytics for real-time insights. With support for NVIDIA® module, along with low-latency AI inferencing and rugged designs, Winmate's solutions offer scalability, efficiency, and adaptability, redefining performance standards for AI-driven industrial IoT.

SPECIFICATIONS

System Specification

Processor	NVIDIA® Jetson Orin™ Nano	**Memory**	8GB LPDDR5 @ 2133 MHz on SOM
Storage	1 x M.2 2280 M-Key NVMe SSD 256GB 512GB (Optional) 1TB (Optional) 2TB (Optional)	**Ethernet controller**	1 x 10/100/1000 Mbps (via Orin™ Nano, with PSE, up to 30 watts of power) 3 x 10/100/1000 Mbps
Security	TPM 2.0	**Operating System**	Linux (Support NVIDIA Jetpack 6.2) (Optional)
WLAN	Support (Optional)	**BT**	Support (Optional)
WWAN	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	130 x 68 x 150 mm	**Weight**	2.5 kg
Mounting	Din-Rail mount Mini Din-Rail Mount (Optional) Wall Mount (Optional)	**Enclosure**	Aluminum and Metal Housing
Cooling System	Fanless Design		

Environment

Operating Humidity	10% to 90% RH, Non-Condensing	**Operating Temperature**	-20°C to 60°C
Storage Temperature	-40°C to 70°C	**Shock**	MIL-STD-810H Method 516.8 Procedure I (Optional)
Vibration	MIL-STD-810H Method 514.8 Procedure I		

Certification

Certification	CE, FCC

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IO Ports

Power Input	1 x Isolated 9~36V DC with 3-Pin Terminal Block	**USB Port**	3 x USB3.2 Gen2x1 (10Gbps, Type-A) 1 x USB3.2 Gen2x1 (Type-C for OTG) 1 x USB2.0 (Type-A)
Serial Port	2 x Isolated RS-232/422/485 (1 x 10 Pin terminal block, select thru jumper) (Default RS232) 1 x Isolated RS-232/422/485 (1 x DB9, select thru BIOS) (Default RS232)	**SIM Card Slot**	1 x nano SIM Card slot (Optional)
Video	1 x HDMI 2.0b , Max resolution up to 3840x2160@30Hz (Optional)	**Audio**	Mic in Line out
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 10/100/1000 Mbps (via Orin™ Nano, with PSE, up to 30 watts of power) 3 x 10/100/1000 Mbps
Indicator	1 x LED Indicator for power	**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

Control

Button	1 x Power Button with LED Indicator 1 x Recovery Button

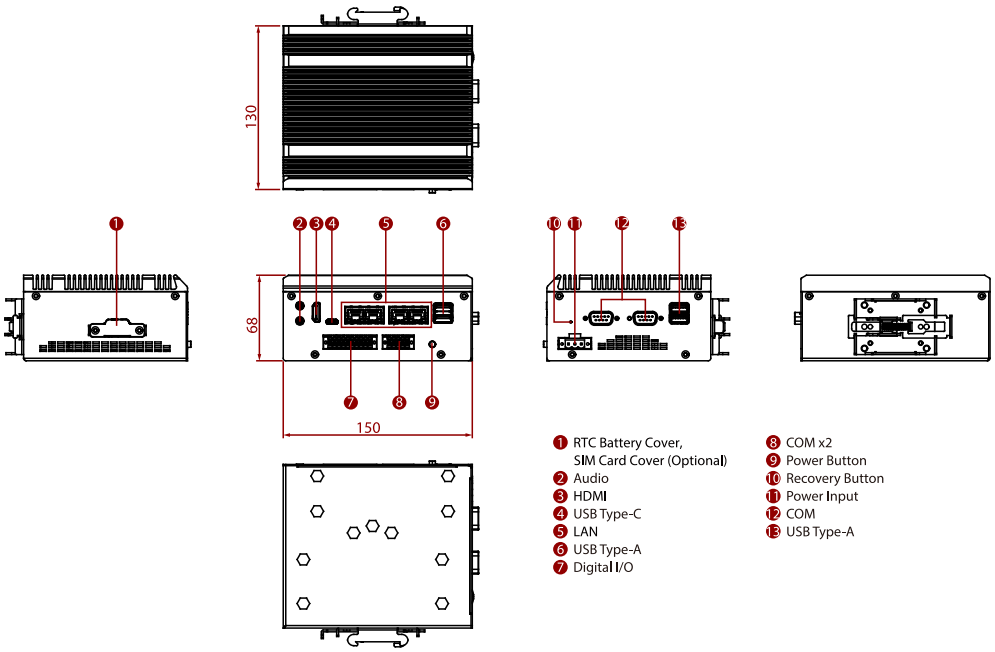
Accessory

Accessory	1 x Terminal Block 20-pin connector for DIDO 1 x Terminal Block 3-pin connector for Power 1 x Terminal Block 10-pin connector for COM 1 x Open Wire Cable 1 x Terminal Block 3-pin to 2.5Ø Female Adapter Cable 1 x Din Rail Mount kits	**Optional Accessory**	1 x 100~240V AC to DC Adapter(12V, 120W) 1 x Power Cord 1 x Mini Din Rail Mount kits 1 x Wall Mount kits

Power

Power Rating	9V to 36V DC	**POE**	PoE (PSE): follows IEEE 802.3at (30W)

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.