EII-6101E

Brain & Motion Robotic Controller

Powered by the NVIDIA® Jetson Orin Nano/NX Super module, this compact controller features strong anti-interference capability, rugged shock-resistant design, and rich I/O connectivity.



- Powered by Jetson Orin Nano/NX Super modules
- Up to 16GB memory and 157 TOPS AI performance
- Up to 8 Arm® Cortex-A78AE cores at 2.0GHz
- 6 x Gigabit Ethernet ports, including 1 x PoE
- 3 x USB 3.0 Type-A, 1 x USB 3.0 Type-C
- Up to 8-channel GMSL2 input
- Supports Wi-Fi, Bluetooth, 4G/5G, TPM 2.0 and GNSS
- Supports CAN bus and RS232/RS485
- Automotive-grade design
- 9 - 36V DC wide-range input with OCP/OVP

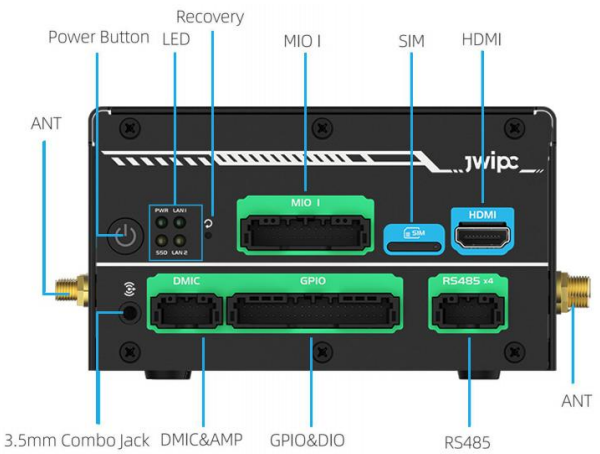
01 Specifications

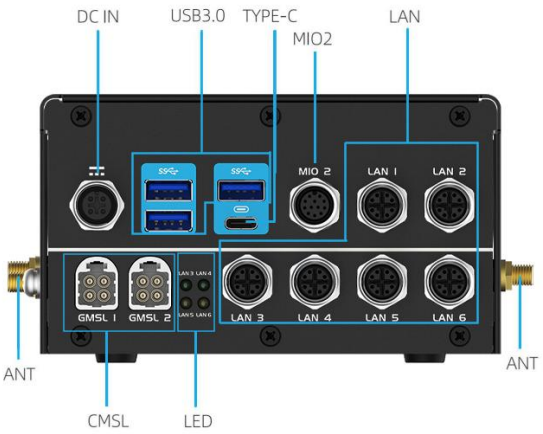
Model		EII-6101E-A	EII-6101E-B	EII-6101E-C	EII-6101E-D
Processor System	Module	Orin Nano Super	Orin Nano Super	Orin NX Super	Orin NX Super
	Memory	4GB	8GB	8GB	16GB
	CPU	6-core A78AE 1.7GHz	6-core A78AE 1.7GHz	6-core A78AE 2.0GHz	8-core A78AE 2.0GHz
	NPU	34 TOPS	67 TOPS	117 TOPS	157 TOPS
	OS	Ubuntu 22.04			
I/O	USB	3 x USB 3.0 Type-A; 1 x USB 3.0 Type-C (OTG)			
	Serial Port	2 x RS232; 9 x RS485 MIO1: 1 x RS232, 4 x RS485, 12V power MIO2: 1 x RS232, 1 x RS485, 24V power RS485 x4: 4 x RS485			
	CAN Bus	2 x CAN FD (MIO1: 1 x CAN FD; MIO2: 1 x CAN FD)			
	LED	8 x LED (1 x power, 1 x HDD, 6 x LAN indicators)			
	Button	1 x Power button; 1 x Recovery button			
Video	GPU	NVIDIA® Ampere GPU			
	Input	2 x mini FAKRA Max (up to 8-channel GMSL2 input)			
	Output	1 x HDMI 2.1, up to 4096 x 2160 @60Hz			
Storage	Storage Device	1 x M.2 2280 SSD (128GB/256GB/512GB/1TB/2TB optional)			
Audio	Audio I/O	1 x 3.5mm combo jack; 1 x 12-pin automotive connector: 4 x DMIC, 2 x 5W AMP			
Network	Wired Network	6 x M12 aviation connectors, 10/100/1000Mbps (one with PoE)			
	Wi-Fi/BT	1 x M.2 Key E for Wi-Fi/BT (Station/AP mode)			
	4G/5G	1 x M.2 Key B for 4G/5G			
Power	Power Input	9 - 36V DC-In			
Other	System Support	Ubuntu 22.04 (JetPack 6.2)			
	Watchdog Timer	255-level programmable sec/min			
	TPM	TPM 2.0			
	GNSS	RTK + DR (integrated IMU)			
	Debug	1 x TTL			

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Install.	Mounting	Desktop / wall-mount
Environment	Operating Temp.	-25° C to 70° C
	Storage Temp.	-40° C to 85° C (-40° F to 185° F)
	Humidity	10% - 85%, non-condensing
	Shock Resistance	With SSD: operating, 15G @11ms, half-sine
	Vibration Res.	With SSD: operating, 2Grms @5 - 500Hz, IEC 60068-2-64
Dimensions	L x W x H	130 (L) x 125 (W) x 70 (H) mm

02 Product view





03 Ordering Information

Model	Module	CPU	RAM	NPU	TDP	AI Performance
EII-6101E-A	Orin Nano 4GB	6 cores	4GB	/	25W	34 TOPS
EII-6101E-B	Orin Nano 8GB	6 cores	8GB	/	25W	67 TOPS
EII-6101E-C	Orin NX 8GB	6 cores	8GB	1 x DLA v2	40W	117 TOPS
EII-6101E-D	Orin NX 16GB	8 cores	16GB	2 x DLA v2	40W	157 TOPS

04 Packing List

Accessory	Description
Power Adapter	Adapter, 120W, AC100 - 240V, 24V, M8 4-pin aviation connector

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Optional Accessories

Accessory	Description
SSD128GB	SSD128GB, M.2 M-Key, 2280, NVMe
SSD256GB	SSD256GB, M.2 M-Key, 2280, NVMe
SSD512GB	SSD512GB, M.2 M-Key, 2280, NVMe
SSD1TB	SSD1TB, M.2 M-Key, 2280, NVMe
SSD2TB	SSD2TB, M.2 M-Key, 2280, NVMe
4G/5G Module	4G/5G module with antenna
Wi-Fi & Bluetooth Module	Wi-Fi & Bluetooth module with antenna

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