

D131

Standard Carrier Board D131 for NVIDIA® Jetson Orin NX/
Xavier™ NX/Nano Module

Suggested Vertical Markets

AMRs / Smart Security/ Smart Inspection

Enterprise-Leading Features

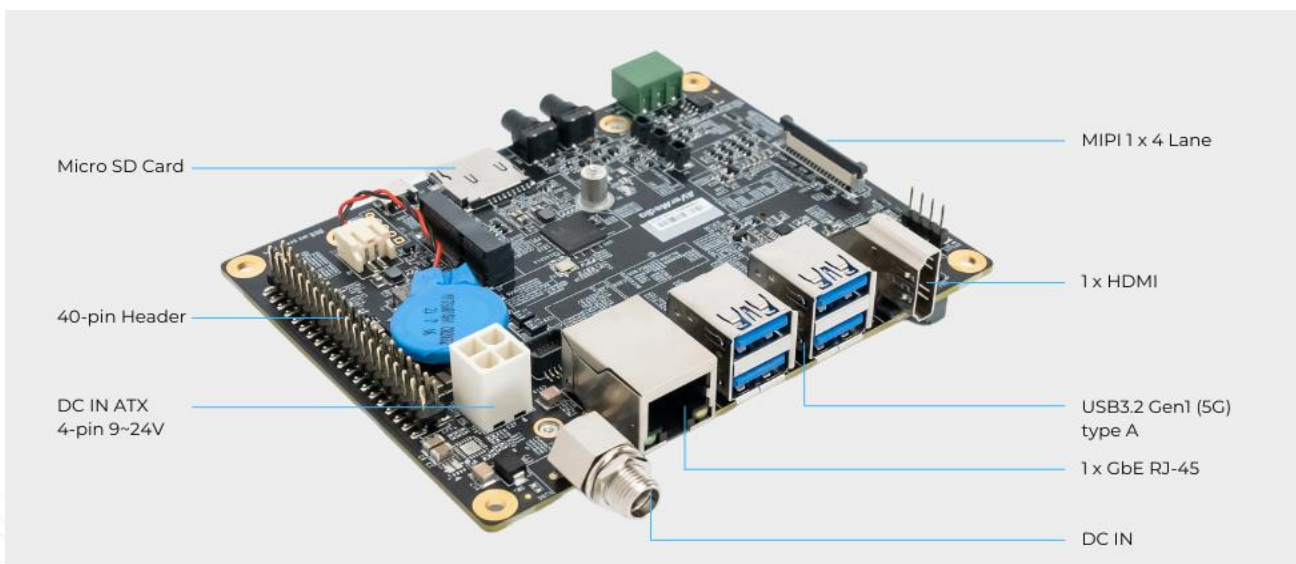
- 2 x 2 Lane MIPI CSI-2 Camera input/ 1 x 4 Lane MIPI CSI-2 Camera Input
- 2 x M.2. for Wi-Fi, SSD and Capture card
- 1 x GbE RJ-45 (Option PoE), 40-pin expansion header
- 4 x USB 3.2 Gen1 (5G) type A and 1 x 4Kp60 HDMI output
- 1 x micro-SD card slot
- Operating temperature: 0°C ~ 70°C (TBD)
- Dimension: 113mm(W) x 105mm(L) x 28.53mm(H) / Weight: 95g

Expandability for Xavier™ NX Module

In addition to the default selection of interfaces, frame grabbers can be added for expanded functionality.

Model	Host Interface	Video Interface	Max Input Resolution
CN312MW	M.2 M key 2280	1x SDI; 1x HDMI	2Kp60 in (SDI) 1920 x 1200p60 in (HDMI) 1080p out
CN312SW	M.2 M key 2280	2x SDI	2Kp60 in - 1080p out
CN311-H	M.2 M key 2280	1x HDMI	4096 x 2160p30

Interface



MIPI Camera Compatibility

MIPI Camera	15-pin MIPI connector	- raspberry pi camera v2 - Manufacturer: APPRO.PHO - B-04: IMX179 (8M) MIPI, 1080P (30fps) - C-04: IMX290 (2M) MIPI, 1080P (30fps) - C-05: IMX290 (2M) +ISP (YUV), 1080P (30fps) - Manufacturer: e-con Systems - e-CAM131_CUNX - 4K Camera - e-CAM50_CUNX - 5.0 MP - e-CAM24_CUNX - Color Global shutter Camera
	36-pin MIPI connector	Manufacturer: APPRO.PHO - B-03: IMX334 (4K) MIPI, 4K (30fps) - A-06: IMX334 (4K) V-by-One® HS x1, 4K (30fps)

Specifications

Model	D131	
NVIDIA Jetson SoM	Jetson Orin NX/ Xavier™ NX/Nano Module	
Networking	1x GbE RJ-45 (PoE option) 1xM.2. key E 2230 for Wi-Fi (Nano doesn't support)	
Display Output	1x HDMI 2.0 (3840 x 2160 at 60Hz)	
Temperature	Operating temperature 0°C~70°C (TBD) Option 0°C~60°C (PSE 802.3 AF) Storage temperature -40°C ~ 85°C Relative humidity 40 °C @ 95%, Non-Condensing	
MIPI Camera Inputs	2x 2 lane MIPI CSI-2, 15 pin FPC 1mm Pitch Connector 1x 4 lane MIPI CSI-2, 36 pin FPC 0.5mm Pitch Connector	
USB	1 x USB 2.0 Micro-B for recovery 4 x USB 3.2 Gen1 (5G) type A	
Storage*	1x M.2. key M 2280 for SSD	
Expansion Header	40-pin: 1x UART, 2x SPI, 2x 12C, 1x I2S, GPIOs 1xCAN (3-pin terminal block) 1xDip Switch button	
Power requirement	Voltage	DC 9~24V
	Current	DC IN Jack on board: 7A~2.6A
		ATX 4pin: 7A~2.6A
Power Cord	12V/5A adapter andUS/JP/EU/UK/TW/AU/CNpower cord (optional)	
Thermal Solution	Heat sink with fan(optional)	
Buttons	Power and Recovery	
RTC Battery	Support RTC Battery and Battery Life Monitoring by MCU	
Dimensions	113mm(W) x 105 mm(L) x 28.53 mm(H) Weight: 95g	
Certifications	CE, FCC, KC	

*D131 have one mSD slot, but NVIDIA Orin NX/Orin Nano doesn'tsupport mSD function. It's SOM limitation.

Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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