

## D131

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

PRELIMINARY

### Suggested Vertical Markets

AMRs / Smart Security/ Smart Inspection



### Enterprise-Leading Features

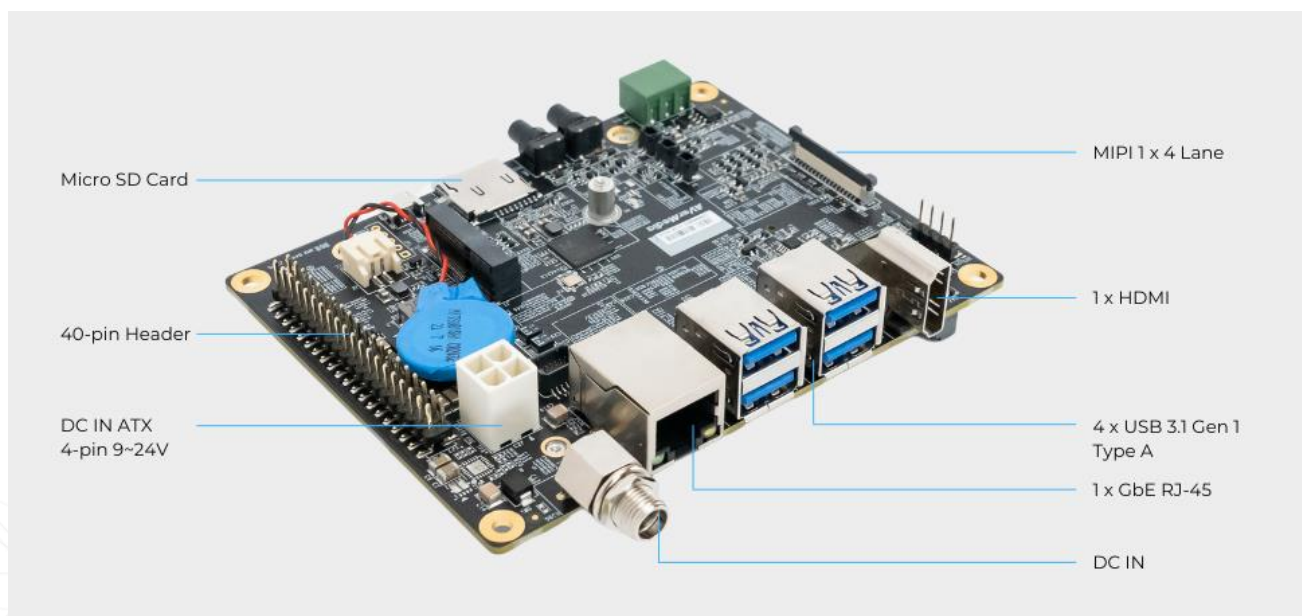
- 2 x 2 Lane MIPI CSI-2 Camera input/ 1 x 4 Lane MIPI CSI-2 Camera Input
- 2 x M.2. for Wi-Fi, SSD and Capture card
- 1 x GbE RJ-45 (Option PoE), 40-pin expansion header
- 4 x USB 3.1 Gen 1 Type A and 1 x 4Kp60 HDMI output
- 1 x micro-SD card slot
- Operating temperature: 0°C ~ 70°C (TBD)
- Dimension: 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	<ol style="list-style-type: none"> <li>1. raspberry pi camera v2</li> <li>2. Manufacturer: APPRO.PHO                             <ul style="list-style-type: none"> <li>• B-04: IMX179 (8M) MIPI, 1080P (30fps)</li> <li>• C-04: IMX290 (2M) MIPI, 1080P (30fps)</li> <li>• C-05: IMX290 (2M) +ISP (YUV), 1080P (30fps)</li> </ul> </li> <li>3. Manufacturer: e-con Systems                             <ul style="list-style-type: none"> <li>• e-CAM131_CUNX - 4K Camera</li> <li>• e-CAM50_CUNX - 5.0 MP</li> <li>• e-CAM24_CUNX - Color Global shutter Camera</li> </ul> </li> </ol>
	36-pin MIPI connector	Manufacturer: APPRO.PHO <ul style="list-style-type: none"> <li>• B-03: IMX334 (4K) MIPI, 4K (30fps)</li> <li>• A-06: IMX334 (4K) V-by-One® HS x1, 4K (30fps)</li> </ul>

## Specifications

Model	D131
NVIDIA Jetson SoM	Jetson Orin NX/ Xavier™ NX/Nano Module
Networking	1x GbE RJ-45 (PoE option) 1x M.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) 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	1x USB 2.0 Micro-B for recovery 4 x USB 3.1 Gen 1 Type A
Storage	1x M.2. key M 2280 for SSD 1x micro-SD card slot ( Orin NX doesn't support)
Expansion Header	40-pin: 1x UART, 2x SPI, 2x I2C, 1x I2S, GPIOs 1x CAN
Input Power	DC in jack on board & ATX 4-pin 12V/5A, 9V~24V is recommended
Power Cord	US/JP/EU/UK/TW/AU/CN
Thermal Solution	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