AVerMedia | NVIDIA ELITE PARTNER

Datasheet v3.r1

D315AO

PRELIMINARY

An Engineering Kit built with NVIDIA® Jetson AGX Orin™



Suggested Vertical Markets

AMRs/ Smart Security/Smart Inspection

Enterprise-Leading Features

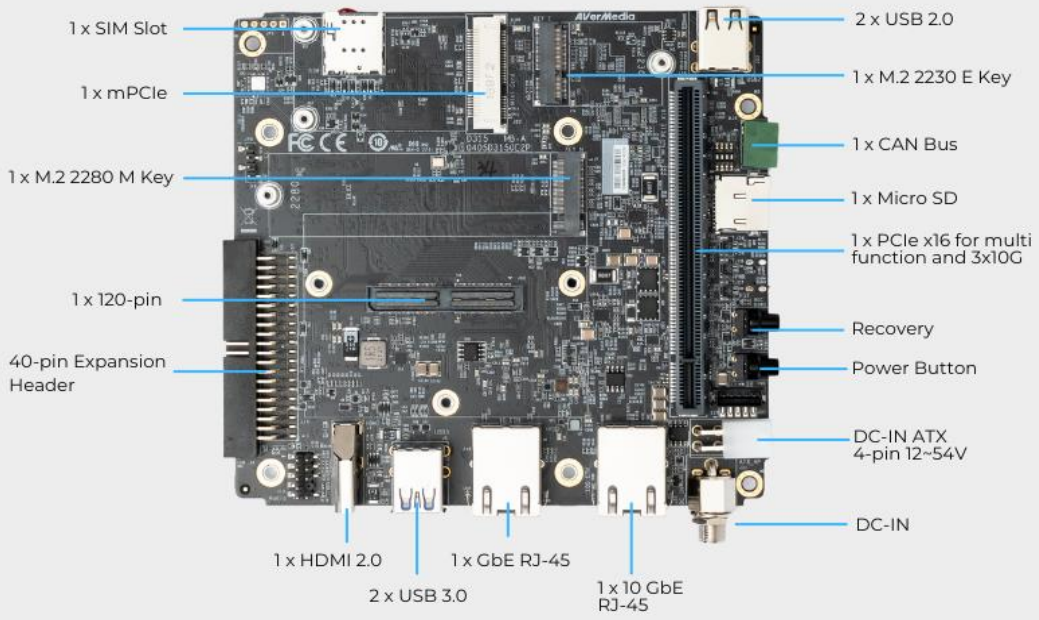
- 120-pin high speed connector for MIPI SerDes cameras, such as GMSL2/FPD-link III/V-by-One® HS, to deploy in AMRs application
- 1x GbE & 1x 10G RJ-45 ethernet for dozens of IP cameras streaming simultaneously in smart security application
- 10GigE Vision camera connector for smart inspection and 1x PCIe slot for multi-function expansion.
- 1x M.2. E key for Wi-Fi 6E, 1x mPCIe for 4G & 5G with adapter card, and 1x M.2. M key for SSD and capture
- Operating temperature: -25˚C ~ 70˚C (TBD)
- Dimension : 141.5mm(W) x 133.5mm(L) x 63mm(H)

Expandability

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
CL312H1	HDMI Type A	2 x HDMI	4096 x 2160p30

Interface



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MIPI/SerDes Cameras Compatibility

MIPI Camera	Raspberry Pi (2Lane/15-pin)	Raspberry Pi camera v2
	APPRO (2Lane/15-pin)	1. B-04: IMX179 (8M) MIPI, 1080P (30fps) 2. C-04: IMX290 (2M) MIPI, 1080P (30fps) 3. C-05: IMX290 (2M) +ISP (YUV), 1080P (30fps)
	e-con (2 Lane/1-pin)	1. e-CAM131_CUNX - 4K Camera 2. e-CAM50_CUNX - 5.0 MP 3. e-CAM24_CUNX - Color Global shutter Camera
	APPRO (4 Lane/36-pin)	B-03: IMX334 (4K) MIPI, 4K (30fps)
SerDes Camera	e-con (GMSL2)	STURDeCAM20 2. STURDeCAM25 3.NileCAM21
	oToBrite (FPD-link III)	oToCAM250/ oToCAM206
	APPRO (V-by-One® HS)	A-06: IMX334 (4K) V-by-One® HS x1, 4K (30fps)

Specifications

NVIDIA Jetson SoM	NVIDIA® Jetson AGX Orin™ module (32GB or 64GB)
Networking	• 1x GbE RJ-45 • 1x 10G RJ-45 • 1x M.2 E Key (for Wi-Fi 6E)
Display Output	1x HDMI 2.0 (3840x2160 at 60Hz)
Temperature	Operating temperature -25°C~70°C (TBD) Storage temperature -40°C ~ 85°C Relative humidity 40 °C @ 95%, Non-Condensing
MIPI & SerDes Camera (120-pin)	GMSL2/FPD-link III/V-by-One® HS (optional)
USB	• 1x USB 2.0 Micro-B for recovery • 2x USB 2.0 Type-A • 2x USB 3.2 Type-A
Audio	Intel HD Audio analog connector
Storage	1x micro-SD card slot
Expansion Header	• 40-pin (UART, SPI, CAN, I2C, I2S, GPIOs) • 1x M.2 M key (for SSD or AVerMedia capture card: CL312H1, CN311-H, CN312SW, CN312MW) • 1x Micro SIM socket • 1x mPCIe (for 4G LTE module or 5G module via adapter card) • 1x PCIe x16 (only support x8 PCIe lanes) • 1x CAN bus with transceiver • 120-pin (for MIPI SerDes)
Input Power	DC in jack on board: 54V/2.78A adapter, DC Range 12~54V (7~1.95A) ATX 4-pin: 12~54V (10.8~2.4A)
Power Cord	US/JP/EU/UK/TW/AU/CN
Thermal Solution	Fan
Buttons	Power and Recovery
RTC Battery	Support RTC Battery and Battery Life Monitoring by MCU
Dimensions	141.5mm(W) x 133.5mm(L) x 63mm(H) Weight: 720g
Certifications	CE, FCC, KC (To be applied)

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