

VPC-101RB2S Series

NVIDIA® Jetson Orin NX / Orin Nano Fanless Panel PC



VPC-101RB2S-OB-P



VPC-101RB2S-OB-G2

- NVIDIA® Jetson Orin™ NX/Orin Nano SoM with 1024 CUDA Cores
- 4 x GMSL-2 Camera Support Optional 4 x PoE+
- IP66 Enclosure
- 2 x Ethernet with M12 Connectors
- 9-60VDC Input with Built-in Smart Power Management

Specifications

System

Module

- NVIDIA® Jetson Orin™ NX 16GB
(1024 CUDA cores + 8-core ARM Cortex-A78AE CPU + 16 GB LPDDR5)
- NVIDIA® Jetson Orin™ NX 8GB
(1024 CUDA cores + 6-core ARM Cortex-A78AE CPU + 8 GB LPDDR5)
- NVIDIA® Jetson Orin™ Nano 8GB
(1024 CUDA cores + 6-core ARM Cortex-A78AE CPU + 8 GB LPDDR5)

Security

- Platform Security Controller (PSC), Security Engine (SE)

LCD

Size

- 10.1"

Resolution

- 1280 x 800

Brightness (Typ.)

- 1000 nits

Contrast Ratio (Typ.)

- 800:1

Viewing Angle (H/V)

- 178/178

Lifetime (hrs)

- 50000

Touch

Touch Type

- PCT w/ AG and AF treatment

Bonding

- Optical Bonding

Interface

Audio

- 1 x Line-out, 1 x Mic-in (optional)

Ethernet

- 1 x 2.5 GbE (Optional 4 x PoE+ for PoE model)
- 1 x GbE via M12 X-code

Camera

- 4 x GMSL-2 via FAKRA (for GMSL Model)

CAN

- 1 x CAN FD via M8

USB

- 2 x USB 2.0 via M8

DIO

- 3 x DI (DC 60 V) + 4 x DO (12VDC/100mA)

COM

- 1 x RS-232/422/485 via M8
- 1 x RS-232 via M8

Mgmt. Port

- 1 x USB Type-C (device only)

Certification / Compliance

- CE, FCC Class A, UKCA, E-Mark

Internal Expansion

M.2

- 1 x M.2 3042/3052 Key B for WWAN w/ Nano SIM support
- 1 x M.2 2230 Key E for Wi-Fi/BT

Storage

Type

- 1 x M.2 2242 Key M for NVMe SSD (Pre-installed system BSP)

Power

Power Input

- DC 9-60V (nominal power input DC 12V/24V/48V)

Power Protection

- OCP, OVP, surge protection, reversed polarity protection

Power Management

- Ignition detection

RTC Battery

- Removable top tray for RTC coin cell battery

Software

Operating System

- NVIDIA® JetPack 6.2 or above
(Jetson Linux and NVIDIA® development tools included)

Environmental

Operating Temp.

- -25°C ~ 60°C (-13°F ~ 140°F) with 0.6 m/s airflow

Storage Temp.

- -40°C ~ 85°C (-40°F ~ 185°F)

Relative Humidity

- 10% RH ~ 95% RH (non-condensing)

Vibration

- IEC 60068-2-64, random, 2.5G@5~500Hz, 1hr/axis
- MIL-STD-810H, Method 514.8, Procedure I, Category 4

Shock

- MIL-STD-810H, Method 516.8, Procedure I, trucks and semi-trailers=15G (11ms)

Mechanical

Antenna

- 6 x SMA connector mounting hole

Mounting

- VESA 100 x 100

Net Weight

- 4.15 kg (9.15 lb)

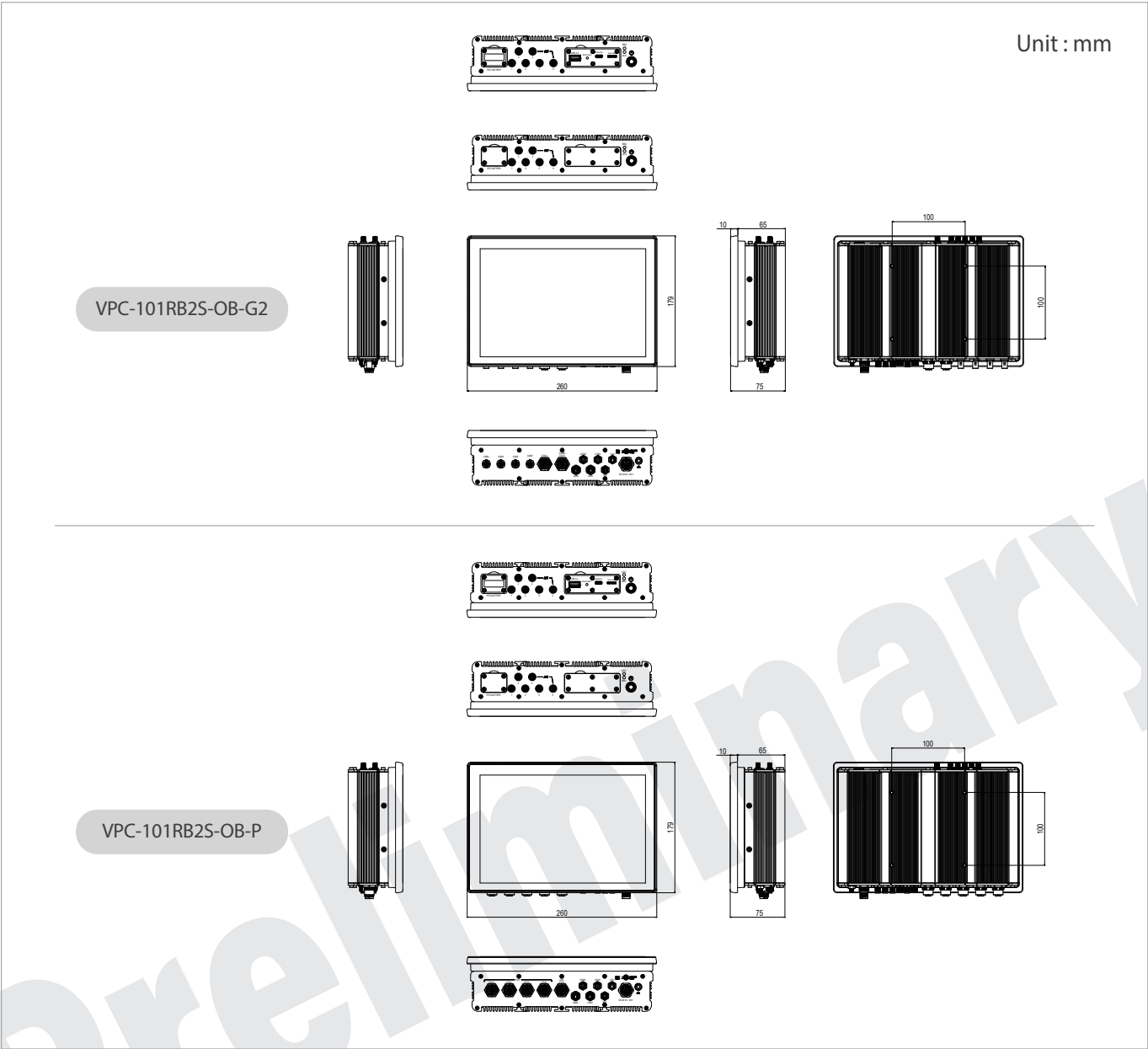
Dimensions (L x W x H)

- 260 x 179 x 75 (10.24 x 7.05 x 2.96 in.)

Ingress Protection

- IP66

Dimensions



Ordering Information

Model Number	VPC-101RB2S-OB-(P/G2)-(ONX16/ONX8/ON8) (P=with PoE+, G2=with GMSL, None=w/o function board) Jetson Platform: ONX16= Jetson Orin 16GB ONX8= Jetson Orin 8GB ON8= Jetson Orin Nano 8GB
State of Origin	Made in Taiwan

Optional Accessories

Storage	M.2 2242 Key M NVMe SSD 240G/256G/480G/512G/960G, -40°C ~ 85°C
Wi-Fi	M.2 2230 Key A-E Wi-Fi module, -40°C ~ 85°C
WWAN	M.2 3042/3052 Key B WWAN module w/ thermal kit, -40°C ~ 85°C
GNSS	M.2 2242 Key B GNSS module, -40°C ~ 85°C

Supported Camera List

Brand	Camera Part Number	VPC-101RB2S-OB-G2
oToBrite	oToCAM2614ISP Series (2MP, Sony IMX390)	V (4)
oToBrite	oToCAM223P Series (2.95MP, Sony ISX031)	V (4)
e-con Systems	STURDeCAM25 (2MP, Omsemi AR0234CS)	V(4)
e-con Systems	STURDeCAM31 (3MP, Sony ISX031)	V(4)
e-con Systems	STURDeCAM81 (8MP, Omsemi AR0821)	V(4)
StereoLabs	ZED X Stereo (Dual 2MP)	V(2)
StereoLabs	ZED X One 4K (8.2MP)	V(2)

V: Supported
n: Maximun number of camera connectores

Preliminary