

* ZED Box

Orin™ Nano 8GB

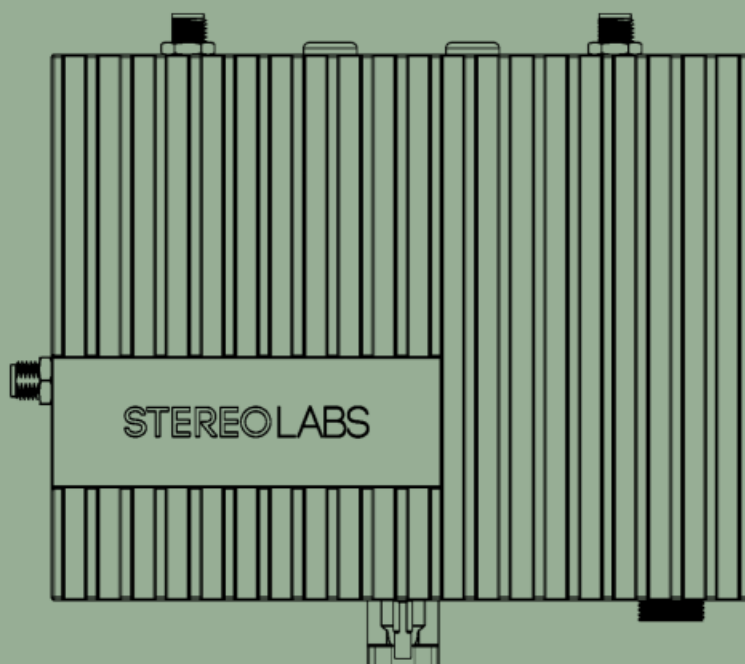
Orin™ NX 8GB

Orin™ NX 16GB

Overview & Datasheet

The embedded mini-PC for spatial AI up to 5x more powerful than the Jetson Xavier NX.

The ZED Box takes advantage of NVIDIA® Jetson™ modules to propel your AI capabilities to new heights. It revolutionizes 3D sensor data processing by delivering real-time performance, transforming this compact embedded PC into a fully autonomous AI system. With its small form factor and PoE+ power connection, it offers a complete solution in a convenient package.



rev. Mar. 2025

*ZED Box Overview

Designed for stereo cameras

Thanks to 3 USB 3.0 ports and its GMSL2 FAKRA port, the ZED Box unleashes the full capabilities of the ZED camera series and beyond, supporting natively all current Stereolabs depth camera models including up to 4 ZED X GS / ZED X Mini GS / ZED X One GS / ZED 2i / ZED Mini and up to 2 ZED One 4k.

Multiple power supply options

The ZED Box can be powered either via PoE+ (up to 25.5W) or by an external 12V/5A power supply. Powering the ZED Box via PoE+ is a powerful advantage as a single Ethernet cable can stream the data and power the ZED Box. Users can deploy ZED cameras anywhere reachable by Ethernet cabling, enabling long-range and outdoor coverage.

Easy to mount

Thanks to its wall brackets and mounting holes, you can simply mount the ZED Box, plug-in the connectors, and power it up. With a variety of mounting options to choose from, your ZED Box can be reliably and securely installed in nearly any environment.

Ready-to-use out of the box

The ZED Box comes set up with all the necessary components for development, such as the latest JetPack with CUDA, TRT, CUDNN, OpenCV, VisionWorks, Docker. In the box, you'll find 2x mounting brackets, 1x mini-USB to USB cable, 1x 1-to-4 GMSL2 cable, 2x 2.4/5GHz WiFi antennas.

ZED BOX | Available Models

Model	ZED BOX Nano 8GB	ZED BOX NX8GB	ZED BOX NX 16GB
AI Module	Jetson Orin Nano 8GB	Jetson Orin NX 8GB	Jetson Orin NX 16GB
AI Performance	40TOPS	70 TOPS	100TOPS
Ideal camera configurations	4X ZED XGS/ ZED x one GS	4X ZED XGS/ ZED x one GS	4X ZED XGS / ZED x one GS
Compute capabilities	Medium computer vision applications for quad stereo camera setups	Advanced computer vision applications for quad stereo camera setups	Cutting-Edge computer vision applications for quad stereo camera setups
performance**	Single Stereo Camera Depth @30fps with 36% GPU load	Single Stereo Camera Depth @30fps with 28% GPU load	Single Stereo Camera Depth @30fps with 23% GPU load
	Dual Stereo Camera Depth @30fps with 64% GPU load	Dual Stereo Camera Depth @30fps with 55% GPU load	Dual Stereo Camera Depth @30fps with 47% GPU load
	Quad Stereo Camera Depth @20fps with 84% GPU load	Quad Stereo Camera Depth @20fps with 80% GPU load	Quad Stereo Camera Depth @25fps with 81% GPU load

* for Jetson™ Power in non-MAXN SUPER mode

** ZED X GS cameras with ZED SDK5.0 NEURAL LIGHT Model with Jetson™ in a non-MAXN SUPER mode with 1920x1200 image resolution

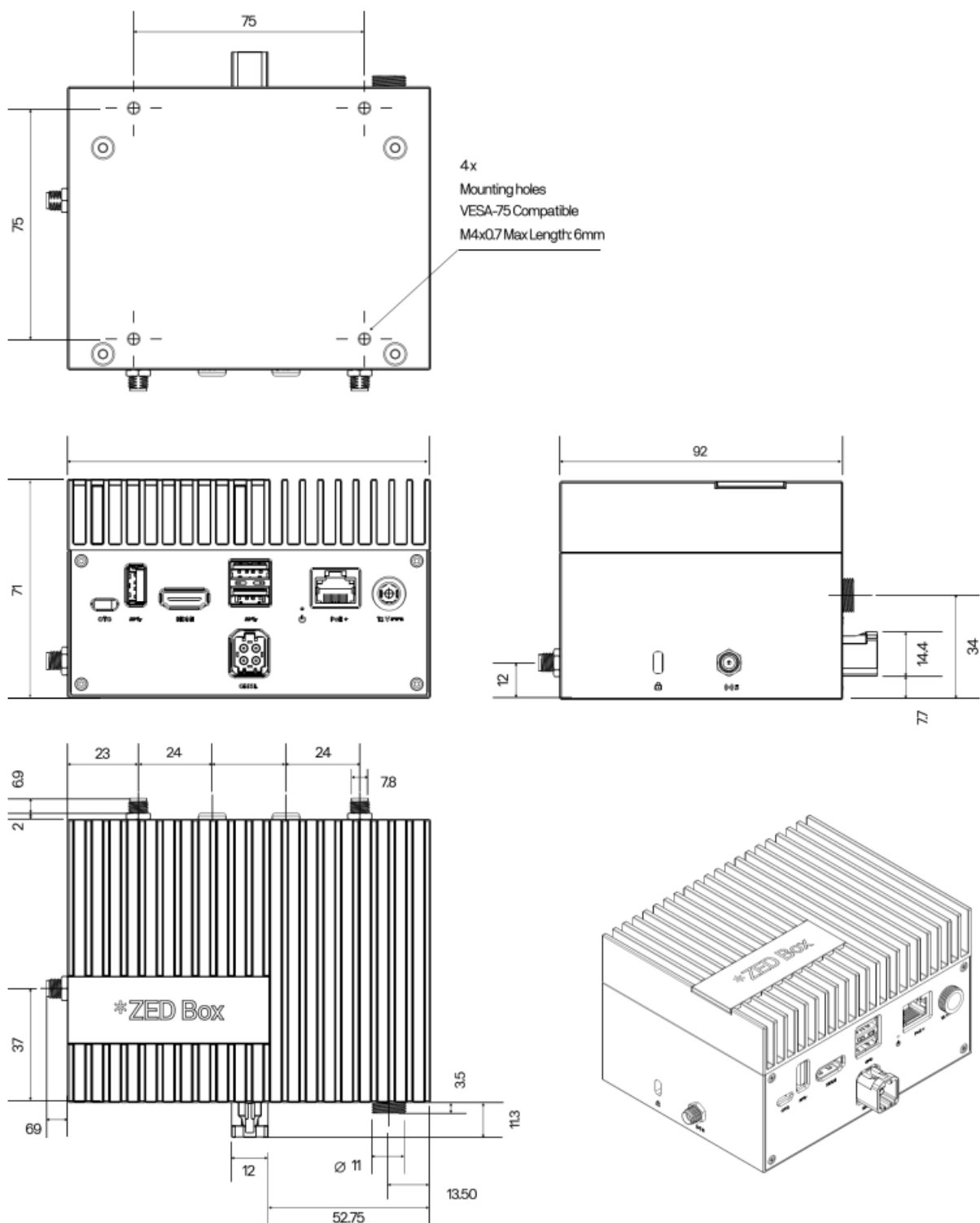
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* ZED Box

Technical Specifications

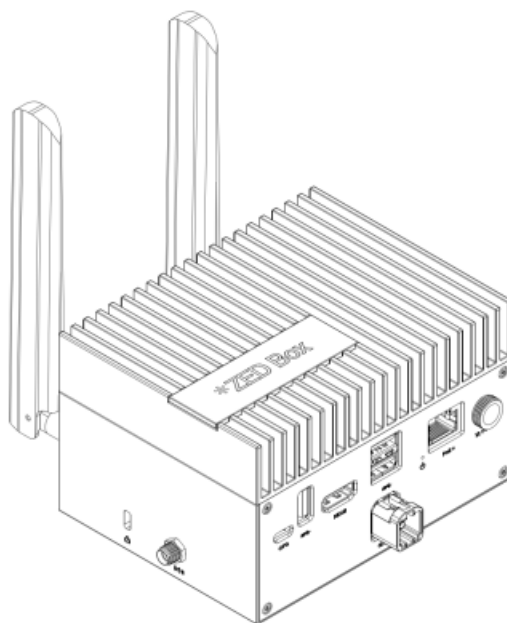
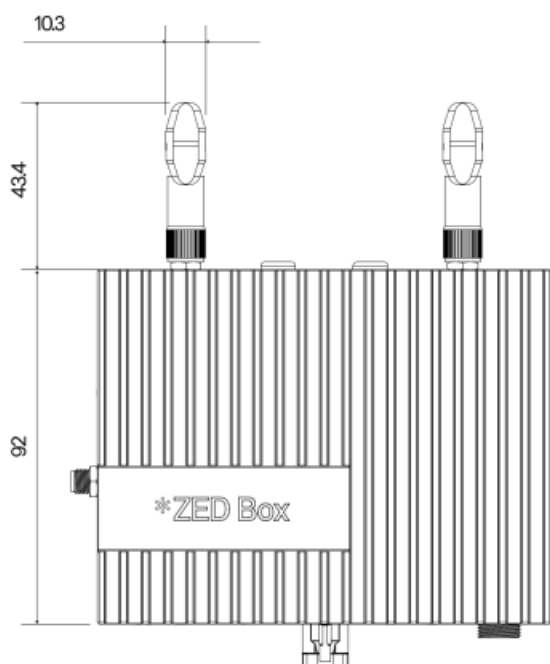
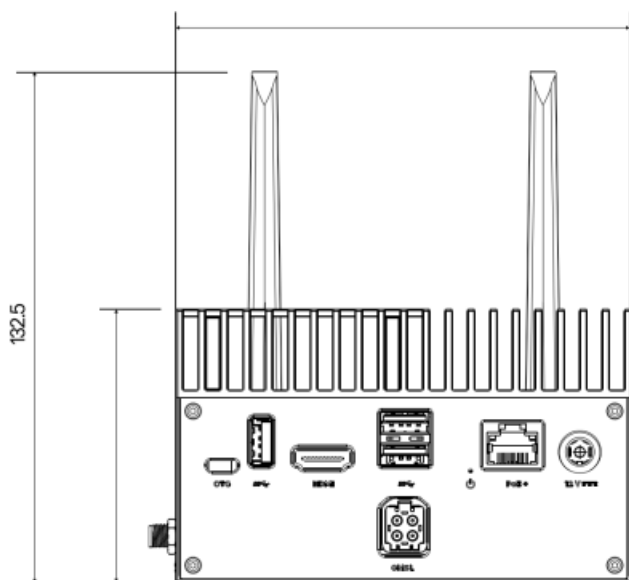
Model	ZED BOX Nano 8GB	ZED BOX NX 8GB	ZED BOX NX 16GB
Reference	ZBX-352110 (256GB, No GPS)	ZBX-312110 (256GB, No GPS)	ZBX-322110 (256GB, No GPS)
	ZBX-352410 (256GB, With GPS)	ZBX-312410 (256GB, With GPS)	ZBX-322410 (256GB, With GPS)
	ZBX-352120 (1TB, No GPS)	ZBX-312120 (1TB, No GPS)	ZBX-322120 (1TB, No GPS)
	ZBX-352420 (1TB, With GPS)	ZBX-312420 (1TB, With GPS)	ZBX-322420 (1TB, With GPS)
	ZBX-352130 (2TB, No GPS)	ZBX-312130 (2TB, No GPS)	ZBX-322130 (2TB, No GPS)
	ZBX-352430 (2TB, With GPS)	ZBX-312430 (2TB, With GPS)	ZBX-322430 (2TB, With GPS)
AI Module	Jet son ori nM Nano 8GB	Jets on orinM NX 8GB	Jets on orinM NX 16GB
AI performance	40TOPS	70 TOPS	100TOPS
Jetson™ Power Mode	15W 125W	10W I 15W I 20W	10W I15W 125W
video Encode	1080p30supported by 1-2 cpu cores	1x 4K @ 60 (H.265) 3x 4K @ 30 (H.265) 6x 1080p @ 60 (H.265) 12x 1080p @ 30 (H.265)	1x 4K @ 60 (H.265) 3x 4K @ 30 (H.265) 6x 1080p @ 60 (H.265) 12x 1080p @ 30 (H.265)
video Decode	1x 4K @ 60 (H.265) 2x 4K @ 30 (H.265) 5x 1080p @ 60 (H.265) 11x 1080p @ 30 (H.265)	1x 8K @ 30 (H.265) 2x 4K @ 60 (H.265) 4x 4K @ 30 (H.265) 9x 1080p @ 60 (H.265) 18x 1080p @ 30 (H.265)	1x 8K @ 30 (H.265) 2x 4K @ 60 (H.265) 4x 4K @ 30 (H.265) 9x 1080p @ 60 (H.265) 18x 1080p @ 30 (H.265)
Display	1X HDMI 1.4	1X HDMI2.1	1X HDMI2.1
Interface s and storage			
cameras Inputs	4x GMSL2 FAKRA-Z 3x USB3.0 Type-A		
Ethernet	1X GbE		
Debug	1X Micro usB2.0Type-B for system fa shing &OTG		
storage	1X256GB/1TB/ 2TB M.2 NVMe ssD		
wifi	wi Fi6 with1X Intel AX210Module mounted on M.2key-E2230socket and 2x 2.4/5GHz wiFi antennas		
GNSS (optional)	1X GPS RT KU-BI ox zED-F gp (support Galileo, GPS, Bei Dou and GLONASS)		
power			
power Input	POE+ (25.5W)or DC-IN(60W,12-19V)		
power Interface	Dc barrel Jack -available with a locking ring		
Mechanical			
weight	700g (1.5lbs)		
Dimensions	118 x92 x71 mm (4.6 x3.6x 2.7") LXW XH		
Mounting	4x Mounting holes VESA-75 Compatible M4x0.7 Wall brackets provided		
case	Industrial black aluminum case passively cooled		
operating Temp.	octo50℃(32F to 122F). storage from -40℃ to +85c (-40F to185F).		
certifications	CE		

*ZED Box Technical Drawings



Dimensions are in mm

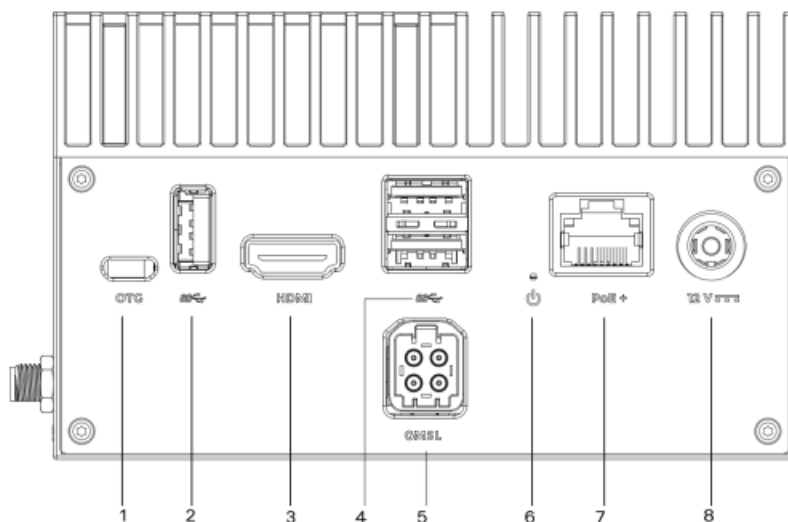
*ZED Box Technical Drawings



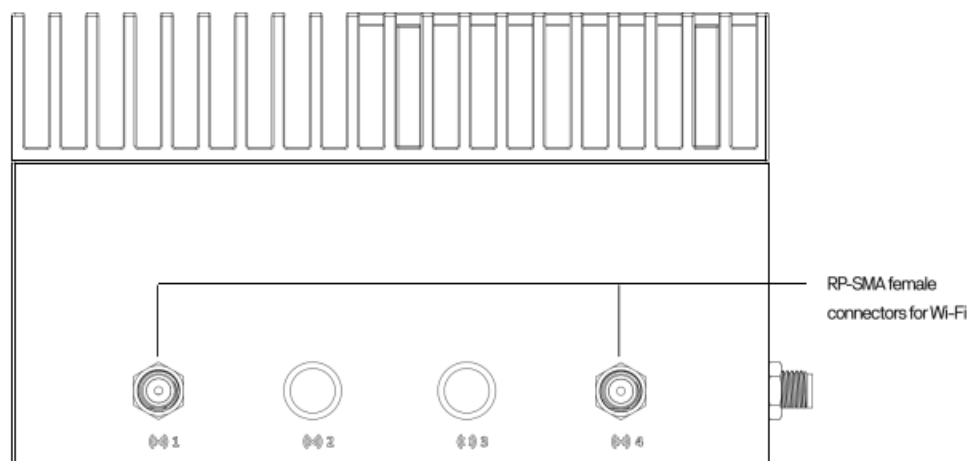
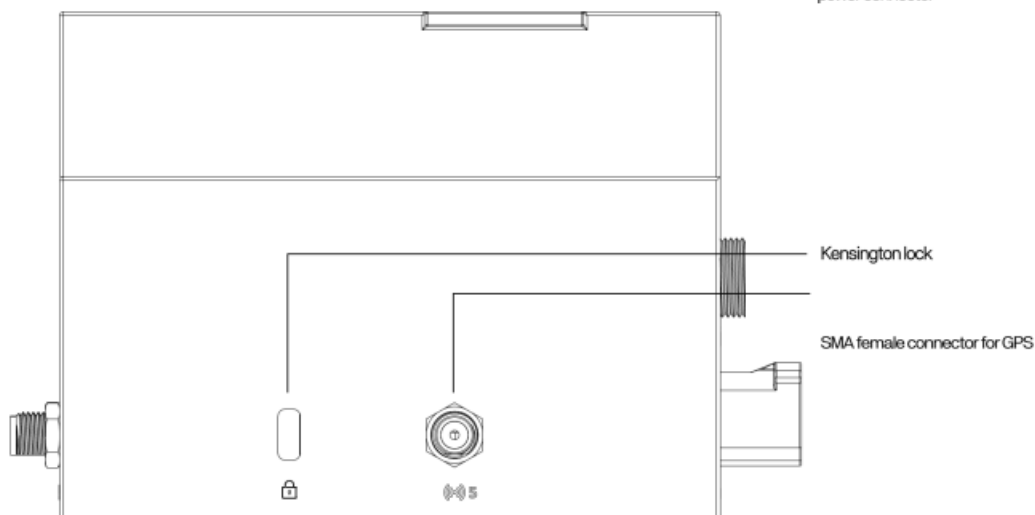
Wifi antennas are shipped with the ZED Box

Dimensions are in mm

*ZED Box Technical Drawings



- | | | | |
|-------------------|-----------------|--------------------|-----------------------------------|
| 1. Micro USB port | 3. HDMI port | 5. GMSL2 Quad port | 7. Network PoE+ port |
| 2. USB 3.2 port | 4. USB 3.2 port | 6. Power Status | 8. DC barrel jack power connector |

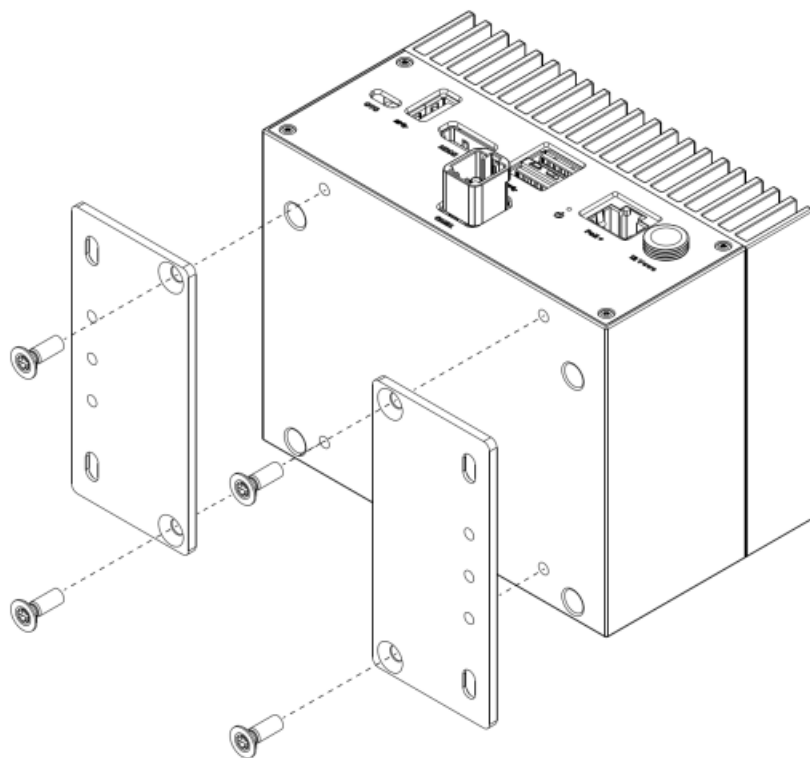


Dimensions are in mm

*ZED Box Technical Drawings

Stereolabs provides mounting brackets for the ZED Gateways so it can be easily mounted to the walls and other areas as well.

First, screw the brackets onto the bottom of the gateway using the slots provided.



Then position the gateway at the desired location and secure the gateway with the screw holes provided.

