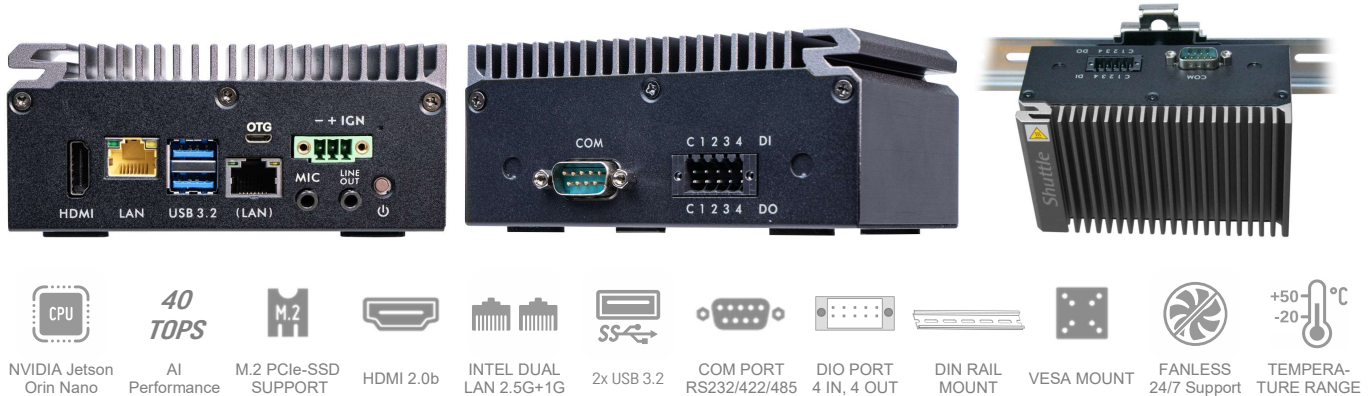


# EDGE PC Barebone SPCNV03

## ROBUST INDUSTRY PC WITH NVIDIA JETSON ORIN NANO CPU

The Shuttle Edge PC SPCNV03 is a fanless IPC barebone in a robust 460 ml metal chassis and intended for DIN-Rail or VESA mounting. It runs under Linux Ubuntu and delivers up to 40 TOPS AI performance. It is flexible in use and de-signed for maintenance-free 24/7 operation at ambient temperatures of up to 50°C. The small housing offers an amazing variety of connections, including dual LAN, COM port and Digital I/O. This product is targeted at professional applications such as video analytics, object recognition, natural language processing, medical imaging and robotics in the smart cities, security, industrial automation and smart factories industries.



### INDUSTRIAL DESIGN

- Rugged aluminum chassis (dark grey) ■ Weight: 900 g net
- Dimensions: 120 x 75 x 51 mm (WDH), 460 ml ■ VESA mount (100x100 and 50x50 mm) ■ DIN Rail mount ■ Supports 24/7 Nonstop Operation
- Operating temperature: -20 ... 50 °C (20-80% RH, non-condensing), Ambient temperature max. 55 °C at a wind speed of 0.7 m/s

### OPERATING SYSTEM

- An operating system is not included
- Supports Linux Ubuntu 20.04 – 64-bit

### PROCESSOR

- CPU: 6-core Arm® Cortex® A78AE v8.2 64 bit, 4MB L3, max. 1.5GHz
- GPU: NVIDIA Jetson Orin Nano 8GB (40 TOPS), TDP max. 15 W
- 1024-core NVIDIA Ampere architecture CPU with 16 Tensor cores
- Passive Cooling

### MEMORY/STORAGE/M.2 slots 2)

- 8 GB 64-bit LPDDR5-2133 (68 GB/s) soldered onboard
- One M.2-2280 M slot supports M.2-SSDs with PCIe interface only
- One M.2-2230 E slot supports M.2 WLAN modules with 2 ext. antennas

### CONNECTORS

- 1x HDMI 1.4b ■ 2x USB 3.2 Gen2 Type A ■ 1x USB-3.2 Type-C OTG
- 2x 2.5G RJ45 LAN-Ports (Intel 226V) ■ Digital Input/Output (4+4 or 3+3 with 1x CAN bus option) ■ DC Input ■ Power Button ■ Power LED
- 1x COM (RS232/422/485) ■ 2x Audio (Mic-in and Line-out)

### DC INPUT

- DC-Input supports 12-24V DC wide range voltage (the power source used should support at least 65W output wattage)
- 3-pin terminal connector with terminal block – the third pin “IGN” acts as input for the car ignition lock which enables delayed on/off switching of the Edge PC
- Adapter cable for external power adapter included (supports 5.5/2.5 mm DC plug), **Note:** the power adapter is not included

### Warning

- Warning of hot surface: risk of burns!

## MODELS OF THE SPCELxx/SPCNVxx EDGE PC SERIES

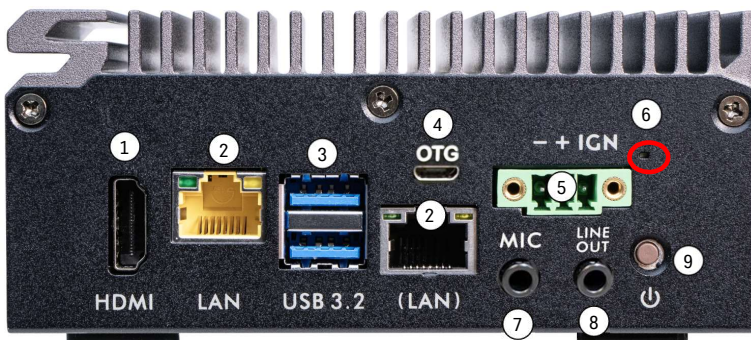
Product UPC-Code	PoE Function	Operating Temperature	SoC Processor (soldered)	Front I/O	Rear I/O	Mounting	DC-Input
<b>SPCEL02</b> 887993007212	—	0 ... 40 °C	<b>Intel Celeron J6412</b> (4-core, 2.0-2.6 GHz, 10 W)	1x HDMI 2.0, 2x USB 3.2, 1x USB 2.0 2x 2.5G LAN	COM (RS232/422/485) DIO: 4x in, 4x out	VESA mount & DIN-Rail	12-24 V DC Power adapter <u>not</u> included
<b>SPCEL02P</b> 887993602240	PoE(PD) 1)						
<b>SPCEL03</b> 887993007229	—	-20 ... 60 °C 2)	<b>Intel Atom x6413E</b> (4-core, 1.5-3.0 GHz, 9 W)	2x HDMI 2.0, 1x DP 2x USB 3.2, USB 2.0 2.5G LAN	2.5G LAN, 2x Audio Nano SIM (opt. 4G) Micro-SD card reader	VESA mount	12-20 V DC Power adapter is included
<b>SPCEL12</b> 887993007243	—	0 ... 40 °C	<b>Intel Celeron J6412</b> (4-core, 2.0-2.6 GHz, 10 W)				
<b>SPCNV03</b> Coming Soon	—	-20 ... 50 °C	<b>NVIDIA Jetson Orin Nano</b> 8 GB RAM, 40 TOPS AI-Perf.	1x HDMI 1.4b, 2x USB 3.2, 1x USB 2.0 2.5G+1G LAN	COM (RS232/422/485) DIO: 4x in, 4x out	VESA mount & DIN-Rail	12-24 V DC Power adapter <u>not</u> included
<b>SPCNV13</b> Coming Soon			<b>NVIDIA Jetson Orin NX</b> (w. fan) 16 GB RAM, 100 TOPS AI-Perf.				

1) **SPCEL02P:** The PoE feature allows this Edge PC to be powered over the LAN cable and thus it becomes a “Powered Device” (PD).

2) **SPCEL03, SPCNVxx3:** at ambient temperatures >40°C, the RAM memory module and SSD card must support the extended temperature range (-40...+85 °C)

## Front and Back Panel

Front panel



1. HDMI 1.4b port
2. Dual 2.5G LAN port (RJ45, Intel 226V)
3. 2x USB 3.2 Gen 2 port (Type-A)
4. USB 3.2 Type-C OTG port
5. 3-pin DC-in connector supports 12-24V DC \*)
6. LED indicator for power state
7. Audio Microphone input
8. Audio Line out
9. Power button

**\*) DC connector:** In this photo the supplied pluggable terminal block is already installed. It uses screw terminals to clamp connecting wires (-/+) coming from the power source.

The third pin "IGN" acts as input for the car ignition lock which enables delayed on/off switching of the Edge PC.

Back panel

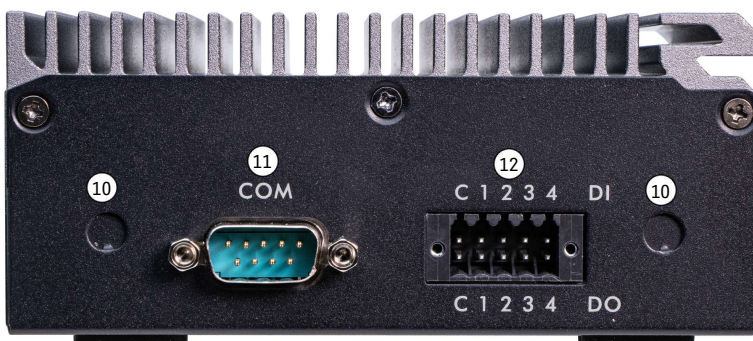
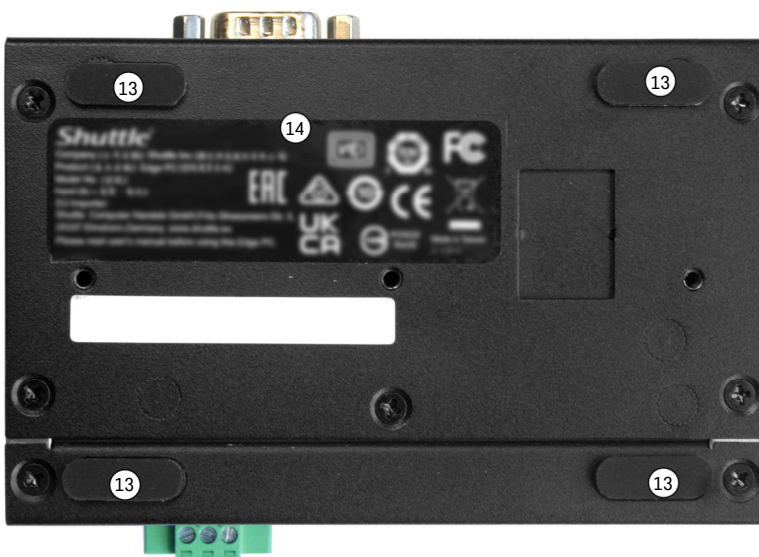


Photo with optional WLAN kit

10. 2x perforation for external WLAN antenna
11. COM port supports RS232/RS422/RS485
12. Digital I/O (4x Input, 4x Output)

Bottom side



13. Four rubber feet
14. Rating label



**Warning of hot surface: risk of burns!**