

Item no.: 401191

**SPCEL12 - Barebone SPCEL02 Intel Celeron J6412 1xSODIMM max 32GB DDR4
2.5G LAN**

from **399,44 EUR**

Item no.: 401191
shipping weight: 1.20 kg
Manufacturer: Shuttle



 [Product Description](#)

Robust 0.5L industrial PC with three graphics ports and 4G optionThe Shuttle Edge PC SPCEL12 is a fanless industrial PC barebone in a robust metal housing that can be mounted using a VESA bracket. It is versatile and designed for reliable, maintenance-free continuous operation at up to 40 °C. Internally, there is an Intel Celeron "Elkhart Lake" processor with slots for a RAM module, M.2 SSD card and optional WLAN or 4G card. The small case offers an astonishing variety of connections such as three graphics ports, dual network, audio and slots for micro SD and nano SIM. The Shuttle SPCEL12 is aimed at professional applications such as digital signage (media player), edge computing (IoT gateway), automation, control, data acquisition and video surveillance.Fanless and quiet- Passive cooling through heat flow (convection)- Large aluminium heat sink without fan, therefore virtually noiseless and ideal for noise-sensitive environments- Less contamination from dust - therefore virtually maintenance-free 24/7 continuous operation- This device is officially approved for 24-hour continuous operation (24/7). Housing- Robust metal housing made of aluminium- Colour: purple- Dimensions: 120 x 75 x 51 mm (BLH) = 460 ml- (height: approx. 53 mm with rubber feet)- Weight: 730/1250 g net (without/with accessories) and 1.5 kg gross Operating positions:1) Via VESA mount, e.g. behind a suitable screen (supported),e.g. behind a suitable monitor (supports the 100x100 mm VESA standard)2) Standing on the rubber feet like a desktop PC Operating system- This system is supplied without an operating system.- It is compatible withWindows 10/11 (64-bit)Linux (64-bit)Processor- Intel® Celeron® processor J6412, Quad Core- Clock frequency: 2.0 GHz, max. turbo frequency: 2.6 GHz. Turbo frequency: 2.6 GHz- Codename: "Elkhart Lake"- 10 nm manufacturing process, FCBGA1493 package (soldered)- CPU cores / threads: 4 / 4- L2 cache: 1.5 MB- Power dissipation (TDP): 10 W- System-on-chip processor (SoC) with integrated graphics function, no additional chipset required Processor cooling- Fanless cooling system with passive heat sink, virtually silent Integrated graphics function- The graphics function (GPU) is integrated in the processor.- Intel® UHD Graphics (Intel Gen 10), GPU clock frequency: 400-800 MHz- Execution Units (EU): 16, Shader: 128- Max. Shared Memory (GPU memory): 8 GB- Supports DirectX 12, Intel Quick Sync Video, Shared Memory- Codec support in hardware: h265 (8-/10-bit), h264, VP8, VP9, AVC (decoding only: AV1, VC-1)- The PC offers three independent video outputs: 2x HDMI v2.0b, 1x DisplayPort v1.4- All outputs support 4K displays with 3840 x 2160 Ultra HD resolution at 60 Hz refresh rate and multi-channel digital audio via the same cable. UEFI firmware- 16 MB Flash ROM with AMI UEFI BIOS firmware- Based on the Unified Extensible Firmware Interface (UEFI)- Supports Wake-on-LAN (WOL) from S3, S4, S5 ACPI modes- Supports booting from external flash storage media (USB or SD card)- Hardware TPM v2.0: Infineon SLB9670VQ2 Memory support- 1x SO-DIMM slot with 260 pins- Supports DDR4-3200 (PC4-25600) SDRAM with 1.2V- Supports one memory module with max. 32 GB capacity- Supports one unbuffered DIMM module (no ECC) M.2Slot for SSD cards- M.2-2242/2280 slot with SATA interface- Supports SSD cards in M.2-2242 format (42 mm long)- Supports SSD cards in M.2-2280 format (80 mm long) only if no WLAN or 4G card is installed- only supports SSD cards with SATA interface (not PCIe/NVMe) M.2 slots for WLAN or 4G- The Edge PC can be equipped with either WLAN or 4G function. Two slots are available for this purpose, which are arranged one above the other:1) M.2-2230 E-Key slot for WLAN cards in 22 x 30 mm (W x L) format2) M.2-3042 B-Key slot for 4G cards in 30 x 42 mm (W x L) formatNotes:1) For thermal reasons, both slots cannot be used simultaneously. In addition, there are only two perforations (holes) for external antennas.2) Ideally, the antenna cables should be 10 cm long. Shuttle offers the optional WLAN accessory "WLN-M3".3) If a WLAN or 4G card is installed, the M.2 SSD card is limited to the M.2-2242 format with a length of 42 mm.4) If a 4G card is installed, it is used in combination with the nano SIM slot located on the back of the Edge PC.5) The M.2-2230 slot also supports an AI accelerator.slot also supports an AI accelerator module for AI applications [1]Dual 2.5G network- Two RJ45 network ports, each with two status LEDs- Network chips used:- 2x Intel i226-V Ethernet Controller (PCIe)- Supports 100 / 1,000 / 2,500 Mbit/s data transfer rate- Supports WAKE ON LAN (WOL)- Supports booting from the network via Preboot eXecution Environment (PXE) Sound function- Audio Realtek® ALC888-VD High-Definition Audio- Two analogue 3.5 mm audio connectors on the rear:1) 2-channel line-out (headphones)2) Microphone input- Digital multi-channel audio output via HDMI and DisplayPort Connections on the front- Power button- LED as power indicator- 2x HDMI 2.0b- 1x DisplayPort v1.4- 2x USB 3.2 Gen 2 Type A (max. 10 Gbit/s)- USB 2.0 Type A- 2.5G network connection (RJ45)- DC input for 2.5/5.5 mm barrel connector supports 12-20 V voltage range Rear connections- 2.5G network connection (RJ45)- Microphone input- Audio line-out (headphones)- Card reader for micro SD cards- Slot for nano SIM card (if 4G card and antennas have been installed)- 2x perforated 6,5 mm holes for optional WLAN or 4G antennas DC input- The DC input supports standard power supplies with 5.5 / 2.5 mm barrel plugs (outer / inner diameter) and supports a wide voltage range from 12 to 20 V. Required output power of the power source: ?65 W. External power supply unit- External 65 W power supply unit (fanless)- Input: 100-240 V AC, 50/60 Hz, max. 1.6 A- Output: 19 V DC, 3.42 A, max. 65 W- DC plug: 5.5/2.5 mm (outer/inner diameter)- AC cable: 3-pin, approx. 1.7 m long, with C5/C6 cloverleaf plug connection to the power supply unit and CEE-7/7 plug with earthing contact (type E+F) for connection to the socket Supplied accessories- Multilingual installation instructions (DE, EN, FR, ES, JP, RU, SC, TC)- Driver DVD (Windows 11, 64-bit)- VESA mount supports the 100x100 mm standard- Three black M3 x 6 mm screws for the VESA mount- Two heat pads for a single-sided or double-sided RAM module - Two heat pads for a single-sided or double-sided RAM module two-sided RAM module- Note: additional heat pads are already installed- External 65W power supply unit with power cable Optional Shuttle accessories1) WLN-M3:WLAN kit contains Wi-Fi 6 card (M.2-2230), 2x antenna cable (10 cm), 2x external antennas2) Coming soon:additional 2.5" bay for a hard disk or SSD with SATA interface Environmental parameters- Permissible operating temperature range: 0 - 40 °C- Permissible relative humidity: 20 - 80% (non-condensing)- Warning: Never touch the heat sink during or shortly after operation. This can become very hot during normal operation. Wait until the heat sink has cooled down before touching it. Certificates and conformity- EMC: CE, FCC Class A, VCCI- Safety: CB/IEC62368-1:2014/2018, cTUVus/UL62368-1:2019- Other: RoHS, ErP, EN 50155 OT1, EN 50121-3-2, MIL-STD-810G- This device is categorised as Class B information technology equipment (ITE) and is primarily intended for use in residential and office environments. The CE mark confirms conformity with the following EU directives:(1) Directive 2014/30/EU on electromagnetic compatibility (EMC)(2) Directive 2014/35/EU on the safety of electrical equipment (LVD)(3) Directive 2009/125/EC on the ecodesign of energy-related products (ErP)Footnotes:[1] Supports AI accelerator module for AI applicationsThe M.2-2230 slot of this Edge PC can be used in place of anAI accelerator module.slot of this Edge PC can also be equipped with an AI accelerator module instead of a WLAN card. The following AI module was successfully tested:Model: Hailo-8- Format: M.2-2230 Key A+E- Interface: PCIe Gen-3.0, 2-lanes- AI computing power: 26 tera operations per second (TOPS)- Typical TDP: 2.5 W

Specifications

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