

Item no.: 375294

DL20N V2 - XPC slim DL20NV2

from **254,40 EUR**

Item no.: 375294
shipping weight: 1,80 kg
Manufacturer: Shuttle



 Product Description

The Shuttle XPC slim barebones of the DL20N series are the successors to the DL10J. These fanless slim PC barebones with economical 10 nm Intel "Jasper Lake" processors are suitable for building particularly slim PC systems with drives and operating system, as well as for purely network-based applications in client/server environments. The optional Shuttle accessory WWN03 enables the installation of an LTE module for mobile Internet access. The integrated graphics are based on Intel's powerful 11th generation Intel UHD Graphics with hardware acceleration for 4K videos. Together with SSD memory, this Slim PC is virtually silent. Fanless and quiet - Passive cooling through heat flow (convection) - No fan, therefore virtually silent - 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). Requirements - Free air circulation in the area surrounding the PC - Freely accessible ventilation holes on the device. - If a hard drive is installed, it must also be approved by the manufacturer - for 24/7 operation. Housing - Slim PC with black metal housing - Dimensions: 19 x 16.5 x 4.3 cm (LWH) = 1.35 litres - Weight: 0.8 kg net and 1.95 kg gross - Two openings for Kensington Lock and numerous - M3 threaded openings on both sides of the housing. Operating position: - 1) Horizontal - 2) Vertical with screwed-on feet. - The feet are available as optional accessory PS02. - 3) Vertical with VESA mount (e.g. behind a suitable monitor) - In vertical position, please align the front USB ports upwards. The ventilation holes must always remain freely accessible to ensure sufficient cooling. Operating system - This system is supplied without an operating system. - It is compatible with: Windows 10 (64-bit) Windows 11 (64-bit) Linux (64-bit) Processor - Intel® Celeron® processor N4505, Dual Core - Clock frequency: 2.0 GHz, max. turbo frequency: 2.9 GHz. Turbo frequency: 2.9 GHz - Codename: "Jasper Lake" - 10 nm manufacturing process, FCBGA1338 package (soldered) - CPU cores / threads: 2 / 2 - L2 cache: 4 MB - Power dissipation (TDP): 10 W - Supports x86-64, AES-NI, VT-x (EPT), VT-d, SSE4.2, AES - System-on-chip processor (SoC) with integrated graphics function, no chipset required Integrated graphics function - The graphics function (GPU) is integrated in the processor - Intel® UHD Graphics (Gen. 11), GPU clock frequency: 450-750 MHz - Supports DirectX 12, OpenGL 4.5, OpenCL 2.0, Intel Quick Sync Video, Intel Clear Video (HD) - Execution Units (EU): 16 - Triple display support via three video outputs: HDMI 2.0b: max. 4096 x 2160 @ 60 Hz DisplayPort 1.4a: max. 4096 x 2160 @ 60 Hz D-Sub/VGA: max. 1920 x 1200 resolution @ 60 Hz - Supports two digital displays and one analogue display simultaneously. - The D-Sub/VGA port supports two digital displays and one analogue display simultaneously. The D-Sub/VGA connection does not support a hot-plug function. UEFI firmware - 16 MB Flash ROM with AMI Aptio UEFI BIOS firmware - Based on the Unified Extensible Firmware Interface (UEFI) - Supports the function "Switch on after power failure" and "always-on/off" [3] - Supports Wake-on-LAN (WOL) from the S3, S4, S5 ACPI modes - Supports booting from external USB flash storage media - Integrated firmware TPM v2.0 (fTPM) [5] - CMOS battery (type CR2032) Memory support - 2x SO-DIMM slot with 260 pins - Supports DDR4-2933 (PC4-23466U) SDRAM with 1.2V - Supports dual-channel mode - Supports max. 16 GB per memory module - Supports a maximum total of 16 GB (either 1x 16 GB or 2x 8 GB) - Supports unbuffered DIMM modules (no ECC) 2.5" drive bay for hard disk/SSD - Supports a drive in 6.35cm/2.5" format (hard disk or SSD) - Serial ATA III interface with max. 600 MB/s - Supports drives with a maximum height of 9.5 mm - Pre-installed SATA cable (data / power) - Supports the Unified Extensible Firmware Interface (UEFI) - M.2 Slot for SSD card M.2 2280 BM Slot - Interfaces: PCI-Express Gen. 3.0 X2 and SATA v3.0 (max. 6 Gbit/s) - M.2 plug-in cards used must be 22 mm wide and can have a length of 42, 60 or 80 mm (type 2242, 2260, 2280). - Supports SATA SSDs (BM-Key) or NVMe PCIe SSDs (M-Key) M.2-2230E slot for WLAN cards - Interfaces: PCI-Express Gen. 2.0 X1 and USB 2.0 - M.2-2230 used plug-in cards used must be 22 mm wide and 30 mm long (type 2230) - Supports WLAN expansion cards (optional Shuttle accessory: WLN-M-M1) Audio function - Realtek ALC897 / ALC662 / ALC888S audio codec - Two analogue 3.5 mm audio connections: 1) Line-out (headphones) 2) Microphone input - Digital multi-channel audio output via HDMI and DisplayPort Card reader - Integrated card reader for reading and writing - from SD, SDHC and SDXC flash memory cards in standard format - Controller: Genesys GL9750 SD Host Controller Network - RJ45 connection supports LAN with 100/1000/2500 Mbit/s. - Intel i225 Ethernet controller with MAC, PHY and PCIe interface - Supports Wake-on-LAN LEDs and buttons - On/off button - LED as power indicator (blue) - LED as hard drive activity indicator (yellow) Front panel connections - 2x USB 3.2 Gen 2 Type A (red) - SD card reader - Audio line-out (headphones) - Microphone input Rear connections - HDMI 2.0b digital video and audio output - DisplayPort 1.4a digital video and audio output - D-Sub/VGA analogue video output (15-pin) - no hot plug - 2x USB 3.2 Gen 1 Type A (blue) - 2x USB 2.0 Type A - Network 2.5 Gbit/s (RJ45) - 2x RS232 serial port, 9-pin. D-Sub (supports 5 V / 12 V auxiliary voltage, - the left port can be switched to RS422 / RS485) [4] - DC input for the external power supply - four-pin connector (2,54 mm pitch) supported - external power button - Clear CMOS function - 5 V DC voltage for external components - 2x perforation for optional wireless LAN antennas Further onboard connections - COM1/COM2 connections for serial interfaces (occupied) - Jumper JP2 for Power-On-after-Power-Fail (hardware solution) [3] - USB 2.0 header (4-pin) is required for the WWN03 accessory Power supply unit - External 40 W power supply unit (fanless) - AC input: 100 - 240 V AC, 50-60 Hz - DC output: 19 V / 2.1 A - Automatic AC voltage detection - Dimensions: approx. 95 x 42 x 29 mm (LWH) - Length of DC cable: approx. 170 cm - Length of the AC mains cable: approx. 170 cm (with 2-pin Euro plug) DC input - DC plug: 5.5 / 2.5 mm (outer / inner diameter) - The DC input of the computer supports an external power supply with 12 V ±5% (max. 3.33 A) or 19 V ±5% (max. 2.1 A). Scope of delivery - Multilingual installation instructions (DE, EN, FR, ES, JP, KR, SC, TC) - VESA bracket for 75 / 100 mm standard (two metal brackets) - Four M3 x 5 mm screws (connects VESA bracket to PC) - Four M4 x 10 mm screws (connects VESA bracket to external mounting) - Four M3 x 4 mm screws (for mounting a 2.5" drive) - Two M3 x 5 mm screws (for mounting M.2-cards) - Driver DVD (Windows 64-bit) - External 40 W power supply with power cable (Euro plug) Optional accessories - PS02: Optional feet for vertical operation - CXP01: Adapter cable for an external power button - PRM01: 2U rack panel for two Shuttle XPC slim PCs - DIR01: DIN rail mounting kit - WLN-M (802.11ac/Wifi 5) and WLN-M1 (802.11ax/Wifi 6): WLAN module in M.2-2230 format with two external antennas supports WLAN and Bluetooth - WWN03: LTE kit with adapter card, 2 antennas and antenna cable supports one M.2 LTE module and a nano SIM card [1] Environmental parameters - Permissible operating temperature range: 0 - 40 °C - Permissible relative humidity: 10 - 90% (non-condensing) Certificates and conformity - EMI: FCC, CE, BSMI, RCM, VCCI - Safety: CB, BSMI, ETL - Other: RoHS, Energy Star, ErP - 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) [1] Optional LTE function Shuttle offers the optional accessory kit "Shuttle Accessory WWN03", which consists of an adapter card, two antennas and 20 cm antenna cables. The adapter card occupies the 2.5" drive bay so that a 2.5" SATA drive can no longer be installed. The 3G/LTE card must be in M.2-3042 Key B format and have MHF IV (I-PEX4) antenna connections. A nano SIM card is also supported (mini and micro format is not supported). The required 3G/LTE card and SIM card are not included with WWN03. [2] Convert DisplayPort to HDMI/DVI The DisplayPort output can be converted to HDMI or DVI using an inexpensive, passive adapter cable. For example: DELOCK 82590: 1 m, DisplayPort (male, 20P) to HDMI-A (male, 19P) DELOCK 82435: 5 m, DisplayPort (male, 20P) to DVI-D (male, 24P) 24P The integrated graphics function recognises the characteristics of the connected display and outputs the appropriate electrical signal - either DisplayPort (without adapter) or HDMI/DVI (with adapter). Conversely, a monitor with DisplayPort cannot be connected to the HDMI output via a simple, passive adapter. [3] Power-On-after-Power-Fail The BIOS setup under "Power Management Configuration" contains the "Power-On-after-Power-Fail" function, which defines how the PC reacts after a power failure: (1) switch on unconditionally, (2) restore status before the power failure or (3) leave switched off. In principle, however, this function can fail in the event of very short power failures, so the Shuttle XPC slim Barebone DL10J also has a pure hardware solution. If you remove jumper JP1 (on the mainboard behind the D-Sub/VGA port), the PC will start as soon as the power supply is restored. [4] Serial interfaces This PC has two serial RS232 interfaces with 9-pin D-Sub connectors on the rear. The left COM port (COM1) can also be switched to RS422 and RS485 mode in the BIOS setup. Pin 9 of the D-Sub COM port connections is a multifunctional connection. The mainboard jumper JP2 can be used to configure whether pin 9 is switched as a "Ring Indicator" (RI) or provides an external power supply of 5 V or 12 V. Each COM port can be configured individually. The maximum current is 500 mA per connection. [5] TPM function This product already has a firmware TPM (fTPM) v2.0. It is also prepared for a hardware TPM chip so that it can be fitted in the factory on special order.

Specifications

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