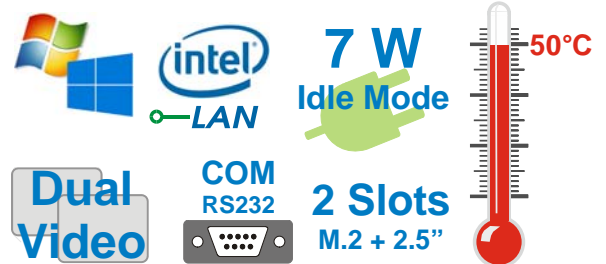


### Good value, small and powerful

NC 1000B is a BTO system based on the Shuttle XPC nano BTO system NC 1000B with less than 600 ml in volume. These small computers are powered by Intel's highly efficient "Broadwell" ULV processors ranging from Celeron up to Core i7. It comes with a vast array of connectivity options such as HDMI, Mini-DisplayPort, USBs, LAN, WLAN-AC, COM port, Audio and an SD card reader. This makes it the ideal platform for applications such as digital signage, POS, Kiosk, Thin Client, Cloud Computing, Office PC and Multimedia. Processor, Memory and Storage of this BTO system can be configured via the Shuttle Systems Configurator.

### XPC nano BTO system **NC 1000B**



#### Feature Highlights

<b>Slim Design</b>	<ul style="list-style-type: none"> <li>• Slim plastic chassis, black, 577 ml</li> <li>• Dimensions: 141 x 141 x 29 mm (LWH)</li> <li>• Incl. Stand &amp; VESA mount (75/100 mm)</li> <li>• Hole for Kensington Lock</li> <li>• Operating temperature: max. 50°C</li> </ul>
<b>Operating System</b>	<ul style="list-style-type: none"> <li>• Windows 7 Prof. or Windows 10 Home/Pro</li> </ul>
<b>Processor</b>	<ul style="list-style-type: none"> <li>• Intel ULV processor: Celeron, Core i3 / i5 / i7</li> <li>• Integrated Intel HD Graphics, DX 11.2</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>• Up to 16GB DDR3L-1600 SO-DIMM</li> </ul>
<b>Drive Bay</b>	<ul style="list-style-type: none"> <li>• Configurable with one SSD or Hard Disk in 2.5" form factor</li> </ul>
<b>M.2 Slot</b>	<ul style="list-style-type: none"> <li>• Configurable with a M.2 SSD (SATA)</li> </ul>
<b>Connectors</b>	<ul style="list-style-type: none"> <li>• HDMI 1.4a, Mini-DisplayPort 1.2</li> <li>• 2x USB 3.0 - 2A charging current</li> <li>• 2x USB 2.0, Gigabit LAN (RJ45)</li> <li>• Audio Combo (headphones, microphone)</li> <li>• SD card reader, RS232 COM port</li> </ul>
<b>WLAN+BT</b>	<ul style="list-style-type: none"> <li>• Wireless LAN 802.11ac + Bluetooth 4.0</li> </ul>
<b>Power Supply</b>	<ul style="list-style-type: none"> <li>• External 65 W fanless power adapter</li> </ul>
<b>Applications</b>	<ul style="list-style-type: none"> <li>• Home Media, Office, Digital Signage, etc</li> </ul>



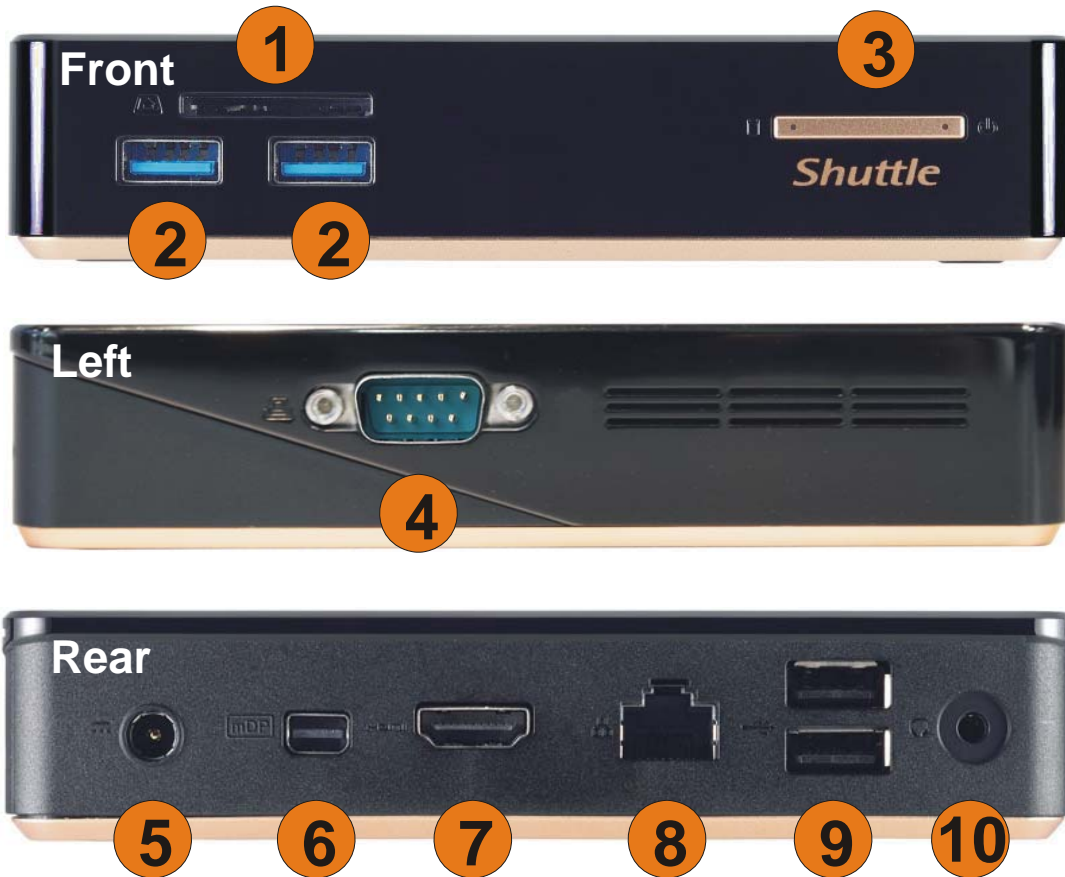
Images for illustration purposes only. This product does include the stand and VESA mount, but does not include memory, storage and operating system.

#### Available range of processors:

Processor	Cores	Threads	CPU Clock	Cache	Graphics	EUs	GPU Clock	4K *)
<b>Celeron 3205U</b>	2	2	1.5 GHz	2 MB	HD	12	300~800 MHz	--
<b>Core i3-5005U</b>	2	4	2.0 GHz	3 MB	HD 5500	24	300~850 MHz	Yes
<b>Core i5-5200U</b>	2	4	2.2~2.7 GHz	3 MB	HD 5500	24	300~900 MHz	Yes
<b>Core i7-5500U</b>	2	4	2.4~3.0 GHz	4 MB	HD 5500	24	300~950 MHz	Yes

\*) Note: An Intel Core i3 processor or higher and dual channel memory (two modules) is required to support 4K Ultra-HD resolution (2160p).

Shuttle XPC nano BTO system NC 1000B – Product Views



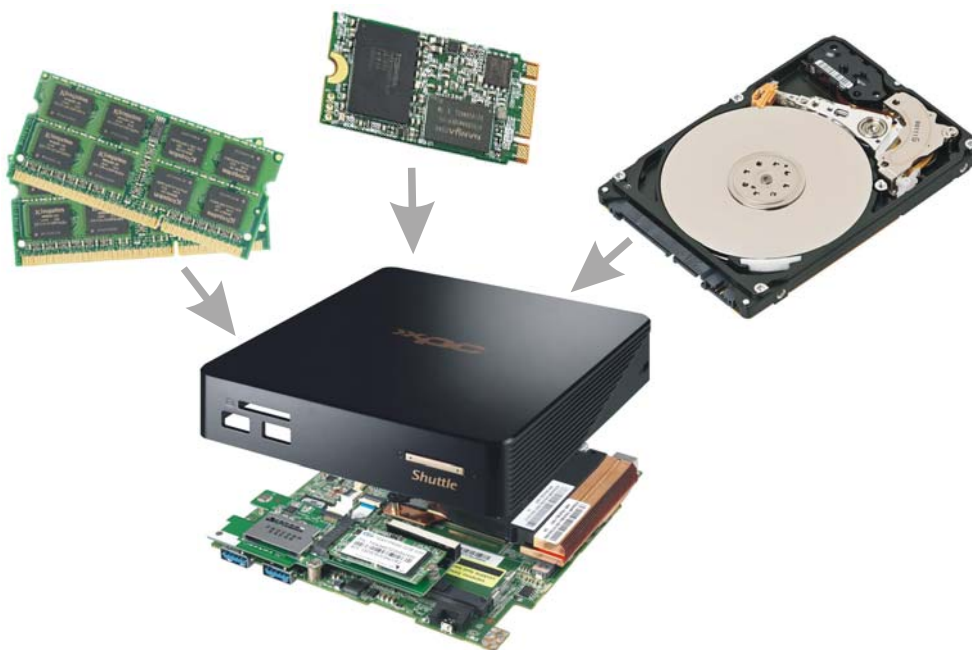
- |                                       |  |
|---------------------------------------|--|
| 1 Card reader                         | 6 Mini-DisplayPort                                       |
| 2 2x USB 3.0 (2A charging current)    | 7 HDMI   |
| 3 On/Off Button with 2 LEDs           | 8 Gigabit LAN (RJ45)                                     |
| 4 RS232 COM port                      | 9 2x USB 2.0   |
| 5 DC input for external power adapter | 10 Audio Combo Port 3.5 mm:<br>Headphones and Microphone |

### Components for configuration

**1~2 memory modules**  
up to 2x 8GB DDR3L-1600  
in SO-DIMM format

**One M.2 SSD storage**  
M.2-2242-BM (22x42mm)  
with SATA interface

**One 2.5" drive**  
SSD or HDD with SATA  
connector (7 mm)



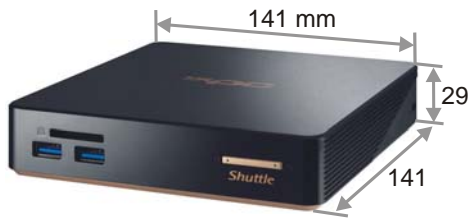
### Operating Positions

1. Horizontal
2. Vertical with Stand
3. VESA-mounted behind a monitor

Stand and VESA mount with screws are included.



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## Product Features

### Stylish and absolutely small

The black plastic case with its curves and coppery elements is certain to be the eyecatcher on your desk. Its volume of barely 600 ml makes it hardly noticeable as a PC, particularly when it is hidden behind monitors thanks to the supplied VESA mount. Despite its dinky dimensions, it provides generous connectivity options and even room for one 2.5 inch drive which can be an SSD or HDD.



### Energy-saving

Power consumption mainly depends on system load. Equipped with a 2.5" SSD drive, the system consumes about 7 W in idle mode. Running the device 5 days a week for eight hours a day in idle mode, the annual consumption would amount to less than 15 kWh which would mean just 3,75 Euros on the power bill (25 Euro ct/kWh) - way less than a conventional desktop PC draws.



### Quick Charge via USB 3.0

Both USB 3 ports have a maximum power output of a 2A current, even if the PC is switched off. Do not connect other storage devices via a USB hub.



### SD Card Reader

The built-in SD card reader at the front side makes file transfer from and to a digital camera easy. It takes SD, SDHC and SDXC memory flash cards in standard size format and also supports booting from bootable SD cards.



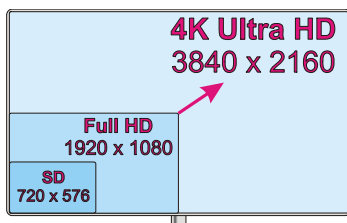
### Serial Port

Serial Ports are still commonly used for applications such as industrial automation systems, scientific analysis, POS systems and other such fields. The Shuttle XPC nano BTO system NC 1000B features one serial RS-232 interface with the traditional 9-pin D-Sub connector for easy connectivity of appropriate components.



### Dual Monitoring via HDMI and Mini-DisplayPort

The NC 1000B can connect two digital displays through its HDMI and Mini-DisplayPort. Dual monitoring helps improve on productivity by allowing for spreading multiple windows across two monitors while working with them simultaneously.



### Supports 4K Ultra HD at 60Hz (with Core i7 or higher)

The DS57U3 supports displays running at 4K (3840 x 2160 / 2160p) high resolution at 60Hz frames per second when connected to its DisplayPort video output. Being the successor to the Full HD standard, Ultra HD delivers a four times higher resolution with a wider colour space and colour depth. Note: dual channel memory (two modules) is required.

## Shuttle XPC nano BTO system NC 1000B - Specifications

<p><i>Chassis</i></p>	<p>Barebone PC with a black plastic chassis                  Dimensions: 141 x 141 x 29 mm (LWH) = 577 ml                  Weight: 0.36 kg net, 1.26 kg gross                  Hole for Kensington Lock                  Includes vertical stand and 75/100mm VESA mount</p>																														
<p><i>Low Power Consumption</i></p>	<p>Power consumption in idle mode: 7 W                  (measured with 2x 4 GB DDR3L-1600 SO-DIMM, 64 GB 2.5" SSD, Windows 7 64 bit)</p>																														
<p><i>Operating System</i></p>	<p>This BTO system is configurable with:</p> <ul style="list-style-type: none"> <li>- Windows 7 Professional</li> <li>- Windows 10 Home</li> <li>- Windows 10 Pro</li> </ul>																														
<p><i>Processor</i></p>	<p>Configurable with the following processors:</p> <table border="1" data-bbox="424 913 1123 1120"> <thead> <tr> <th>Processor Model</th> <th>Cores / Threads</th> <th>Clock / Turbo</th> <th>L3-Cache</th> <th>Intel Graphics</th> <th>GPU Clock (MHz)</th> </tr> </thead> <tbody> <tr> <td>Celeron 3205U</td> <td>2 / 2</td> <td>1.5 / - GHz</td> <td>2 MB</td> <td>HD</td> <td>300~800</td> </tr> <tr> <td>Core i3-5005U</td> <td>2 / 4</td> <td>2.0 / - GHz</td> <td>3 MB</td> <td>HD 5500</td> <td>300~850</td> </tr> <tr> <td>Core i5-5200U</td> <td>2 / 4</td> <td>2.2 / 2.7 GHz</td> <td>3 MB</td> <td>HD 5500</td> <td>300~900</td> </tr> <tr> <td>Core i7-5500U</td> <td>2 / 4</td> <td>2.4 / 3.0 GHz</td> <td>4 MB</td> <td>HD 5500</td> <td>300~950</td> </tr> </tbody> </table> <p>Memory controller: DDR3L-1600 Dual Channel (1.35V)                  TDP wattage: 15 W maximum                  Manufacturing process: 14 nm                  Maximum Tjunction Temperature: 105°C                  Integrated Intel HD graphics engine                  Supports 64 Bit, VT-x, VT-d, Enhanced SpeedStep, NX bit, SSE 4.1/4.2</p>	Processor Model	Cores / Threads	Clock / Turbo	L3-Cache	Intel Graphics	GPU Clock (MHz)	Celeron 3205U	2 / 2	1.5 / - GHz	2 MB	HD	300~800	Core i3-5005U	2 / 4	2.0 / - GHz	3 MB	HD 5500	300~850	Core i5-5200U	2 / 4	2.2 / 2.7 GHz	3 MB	HD 5500	300~900	Core i7-5500U	2 / 4	2.4 / 3.0 GHz	4 MB	HD 5500	300~950
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<p><i>Integrated Graphics</i></p>	<p>Intel HD Graphics or Intel HD Graphics 5500 (see above table)                  Two digital audio/video ports: Mini-DisplayPort 1.2 [1] and HDMI 1.4a                  Supports two independent screens at 2560 x 1600 resolution                  Supports DirectX 11.2, OpenCL 1.3/2.0, OpenGL 4.3                  Supports full AVC/VC1/MPEG2 hardware decoding                  Supports HD video plus multi-channel digital audio via a single cable                  Dynamic, shared memory: up to 1632 MB  <b>Note:</b> An <u>Intel Core i3 processor or higher</u> is required to support 4K Ultra-HD resolution (2160p).                  Supports one Ultra HD / 4K display running at 3840 x 2160 (2160p) resolution                  Max. frame rate with Ultra HD resolution: 60 Hz via DisplayPort, 30 Hz via HDMI</p>																														

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<b>Mainboard BIOS</b>	<ul style="list-style-type: none"> <li>Supports resume after power failure</li> <li>Supports Wake on LAN (WOL)</li> <li>Supports Power on by RTC Alarm</li> <li>Supports booting from USB devices and SD card reader</li> <li>AMI BIOS in 8 MByte EEPROM with SPI interface</li> <li>Supports hardware monitoring and watch dog function (ITE 8528E)</li> <li>Supports Unified Extensible Firmware Interface (UEFI)</li> </ul>
<b>Power Adapter</b>	<ul style="list-style-type: none"> <li>External 65 W power adapter (fanless)</li> <li>Input: 100~240 V AC, 50/60 Hz, max. 1.6 A</li> <li>Output: 19 V DC, max. 3.42 A, max. 65 W</li> <li>DC Connector: 5.5/2.5mm (outer/inner diameter)</li> </ul>
<b>Memory</b>	<ul style="list-style-type: none"> <li>Configurable with up to 16 GB DDR3L-1600 SO-DIMM memory</li> <li>Supports Dual Channel mode</li> </ul>
<b>M.2 SSD</b>	<ul style="list-style-type: none"> <li>Configurable with a M.2 SATA SSD ( Type 2242 = 22 x 42 mm)</li> </ul>
<b>Audio</b>	<ul style="list-style-type: none"> <li>Audio Realtek® ALC 269Q-VC3 High-Definition Audio Codec</li> <li>3.5mm / 4-pole combo audio connector for headphones and microphone [2]</li> <li>Digital multi-channel audio output: via HDMI and Mini-DisplayPort</li> </ul>
<b>Gigabit LAN</b>	<ul style="list-style-type: none"> <li>Intel i218LM PHY connected to the MAC of the processor</li> <li>Supports 10 / 100 / 1.000 MBit/s operation (Gigabit)</li> <li>Supports WAKE ON LAN (WOL)</li> <li>Supports network boot by Preboot eXecution Environment (PXE)</li> </ul>
<b>Wireless Network (WLAN)</b>	<ul style="list-style-type: none"> <li>WLAN expansion card (M.2- 2230-AE) with two internal antennas</li> <li>Chip: Realtek RTL8821AE</li> <li>Supports Wireless LAN IEEE 802.11b/g/n/ac 1T1R, 2,4 GHz or 5 GHz</li> <li>Max. speed: 150 Mbps (2.4 GHz) or 433 Mbps (5 GHz)</li> <li>Supports Bluetooth 4.0</li> </ul>
<b>2.5" Storage Drive</b>	<ul style="list-style-type: none"> <li>Configurable with one SSD or hard disk drive in 6.35cm/2.5" format</li> <li>Supports Serial-ATA III, 6 Gb/s (600 MB/s) bandwidth</li> </ul>
<b>Card Reader</b>	<ul style="list-style-type: none"> <li>Integrated SD card reader</li> <li>Supports SD, SDHC and SDXC memory flash cards</li> <li>Genesys Logic GL823-OGY08 with USB interface</li> <li>Supports booting from SD card</li> </ul>
<b>Front Panel Connectors</b>	<ul style="list-style-type: none"> <li>2x USB 3.0 (both support 2.0 A charging)</li> <li>SD card reader (supports SD, SDHC, SDXC)</li> <li>Power button</li> <li>Power LED (blue, blinking in suspend mode)</li> <li>HDD LED (orange)</li> </ul>

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<p><i>Back Panel Connectors</i></p>	<p>Mini-DisplayPort 1.2 [1]                  HDMI 1.4a                  2x USB 2.0                  Gigabit LAN (RJ45)                  Audio Combo Port for headphones and microphone ( 3.5 mm jack, 4-pole) [2]                  DC-input connector for external power adapter</p>
<p><i>Left Side Connectors</i></p>	<p>Serial RS232 COM port (D-Sub, 9-pin)</p>
<p><i>Supplied Accessories</i></p>	<p>User guide                  Driver DVD for Windows                  VESA mount set (made of steel, with screws)                  Stand for vertical operation mode                  Power adapter with AC power cord</p>
<p><i>Environmental Specifications</i></p>	<p>Operating temperature range: 0~50°C [3]                  Relative humidity range: 10~90% (non-condensing)</p>
<p><i>Conformity Certifications</i></p>	<p>EMI: FCC, CE, BSMI, C-Tick                  Safety: ETL, CB, BSMI                  Other: RoHS, Energy Star, ErP                  This device is classed as a technical information equipment (ITE) in class B and is intended for use in living room and office. The CE-mark approves the conformity by the EU directives:                  (1) 2004/108/EC relating to electromagnetic compatibility (EMC),                  (2) 2006/95/EC relating to Electrical Equipment designed for use within certain voltage limits (LVD),                  (3) 2009/125/EC relating to ecodesign requirements for energy-related products (ErP),                  (4) 1999/5/EC related to Radio and Telecommunications Terminal Equipment (R&amp;TTE)</p>

**[1] Mini-DisplayPort**

A monitor with a standard DisplayPort can ideally be connected using an adapter cable that converts Mini-DisplayPort to DisplayPort (e.g. DELOCK 82698).

**[2] Audio connector**

The 3.5mm audio jack at the back panel of this device supports both a 4-pole connector for headphones and microphone and headphones with only a 3-pole connector. Headsets with separate connectors for headphones and microphone, though, require an appropriate adapter, if also the microphone should be used.

**[3] High ambient temperatures**

Caution: for high ambient temperature over 40°C we strongly recommend to use SSDs (supporting at least 70°C) and rugged SODIMM memory with wide temperature range (up to 95°C).