## Robust, reliable and flexible: the 1.3 litre PC with powerful Intel desktop processor

Shuttle's D 6100B is a slim, but powerful Slim PC with an Intel LGA1155 desktop processor offering the best quality, performance and connectivity to meet the requirements of processing high quality digital media. D 6100B helps you build an affordable media player. The possibilities of this PC are highly versatile. With its robust metal chassis and outstanding temperature range the D 6100B is an industrial-grade signage platform designed for longterm, smooth and reliable operation.

# 1.3L Slim PC BTO-System **N**6100R







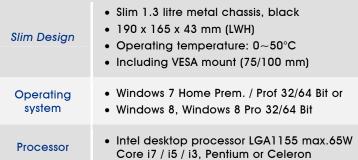


Images for illustration purposes only. It is possible to modify certain components of this basic configuration. Please refer to the "Shuttle Systems Configurator".





### **Feature Highlights**



Chipset • Intel H61 Express Chipset

• 2x 204 pin SO-DIMM slots with up to 16GB DDR3-1333 memory

 Integrated Intel HD graphics (features depends on processor) **Graphics** 

• Video-outputs: HDMI and DVI-I

Storage Hard disk or SSD (SATA, 2.5")

• HDMI, DVI-I

2x Audio (Line out and microphone)

2x USB 3.0 rear, 4x USB 2.0 front

SD card reader

• Dual Gigabit LAN (RJ45), supports WOL, PXE

2x COM ports (RS232 + RS232/RS422/RS485)

Connector for external power button

**Optional** • Internal WLAN module w/ external antenna

**Power Supply** • External 90W fanless power adapter

• Digital Signage, POS, control PC, Office, ...

• 24 Months Pick-Up-And-Return Service Warranty

Memory

Connectors

**Application** 

### **Connectivity / Applications**

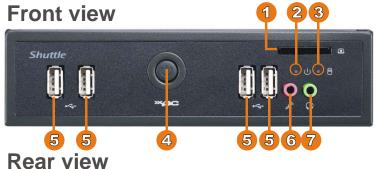
The D 6100B's great connectivity makes it well-suited for a wide field of applications and external devices.



The D 6100B is your powerful 1.3-litre Slim-PC solution for high performance driven applications, e.g.:

- Digital Signage
- In-store Audio/Video entertainment
- Gambling
- Home-Media
- Office
- Call Center
- Education
- Kiosk
- Point of Sales (POS)
- Medical
- Automation
- Small server

### Shuttle D 6100B – Front and Back Panel







# Right side



### Left side



- SD Card Reader
- Power LED
- Hard disk LED
- Power Button
- 5 4x USB 2.0
- Microphone input
- Headphone output
- 2x WLAN perforation
- RS232/RS422/RS485
- С RS232
- D Ventilation grille
- DC power input
- 2x RJ45 Gigabit LAN
- 2x USB 3.0
- HDMI video port
- DVI-I video port
- Connector for external power button
- 2x holes for Kensigton Lock
- L VESA mount (two parts)



#### **COM port Pin 9 Configuration**

Pin 9 is a multi-functional signal. Based on Jumper JP2 configuration on the mainboard, it can be configured as Ring Indicator (RI) or external power supply with either 5V or 12V voltage level (each COM port separately).

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	Shuttle D 6100B Specifications
Chassis	Nettop PC with black chassis made of metal Dimensions: $190 \times 165 \times 43 \text{ mm}$ (LWH) = $1.35 \text{ litres}$ Storage bays Two holes for Kensington Locks (at both sides of the chassis)
Processor	Socket 1155 (LGA 1155) is populated with Intel Core i3 / i5 / i7 / Pentium or Celeron processor with a power consumption of up to 65 W TDP
Processor Cooling	Processor cooling with and two 60mm fans on the upper side of the chassis
Memory	2x SO-DIMM slots with 204 pins populated with 2, 4, 8 or 16 GB DDR3-1333 memory
Storage Bay	One 6.35 cm / 2.5" storage bay is populated with one SATA hard disk or SSD driveOperation System
Operation System	This system comes with a Windows operating system of your own choice: - Windows 7 Home Premium or Professional, 32 or 64 Bit - Windows 8 or Windows 8 Pro, 32 or 64 Bit
Mainboard Chipset BIOS	Chipset: Intel® H61 Express Chipset AMI BIOS in 8Mbit EEPROM with SPI interface All capacitors are high quality solid capacitors Supports hardware monitoring and watch dog functionality Supports Unified Extensible Firmware Interface (UEFI) [2] Supports resume after power failure
Power Adapter	External 90W power adapter (fanless) Input: 100~240V AC, 50/60 Hz, Output: 19V DC, 4.74A, max. 90W
Integrated Graphics	The features of the integrated graphics function depend on the used processor type.  "Sandy Bridge" processor: Intel® HD Graphics 2000/3000, DirectX 10.1  "Ivy Bridge" processor: Intel® HD Graphics 2500/4000, DirectX 11  Maximum shared memory size: 1692MB  Supports HDMI, max. resolution up to 1920x1200 @ 60Hz  Supports DVI, max. resolution up to 1920x1200 @ 60Hz  Supports D-Sub, max. resolution up to 2048x1536 @ 75Hz  (optional VGA-to-DVI-adapter required)  Supports Blu-ray Stereoscopic 3D with HDMI 1.4a [1]  Supports HDCP function with DVI and HDMI ports  Supports Full HD 1080p Blu-ray (BD) / HD-DVD playback with DVI and HDMI ports  Supports Dual-Independent-Display via HDMI and DVI-I port  HDMI supports HD video plus multi-channel digital audio via a single cable

Mini-PCle

slots

Audio	Realtek® ALC 662 High-Definition Audio (5.1 channel) Two analog audio connectors (3.5mm) at the front panel: 1) 2 channel line out (head phone) 2) microphone input Digital multi-channel audio output: via HDMI
Dual Gigabit LAN Controller	Dual Realtek 8111E Ethernet network controller (Gigabit) Supports 10 / 100 / 1.000 MBit/s operation With two RJ45 ports (dual network) supports Teaming [3] Supports WAKE ON LAN (WOL) Supports network boot by Preboot eXecution Environment (PXE)
Card reader	Integrated card reader supports SD, SDHC and SDXC memory flash cards Supports boot up from SD card.
Front Panel Connectors	Microphone input Audio Line-out (headphone) 4x USB 2.0 (upgrade from 2 to 4 ports in Q1/2013) SD card reader Power button Power LED (blue) HDD LED (yellow)
Back Panel Connectors	HDMI connector [1] (supports DVI-D with optional adapter) DVI-I connector (supports VGA with optional adapter) 2x USB 3.0 2x GigaBit LAN (RJ45) 2x RS232 serial ports (5V/12V, 1x switchable to RS422 / RS485) DC-input connector for external power adapter 2 pin connector for power on button Optional: internal WLAN module (802.11n) with external antenna
Other Onboard Connectors	2x SATA 2.0 (3 Gb/s) 6x USB 2.0 (three 2x5 pin headers) 2x USB 2.0 (2x5 pin, occupied by the front panel) 2x fan connectors (3pin and 4 pin) for the system fans Clear CMOS jumper (2 pins) Digital audio: S/PDIF output (3 pins) Connector for CMOS battery (with battery) 2x10 pins LPC interface (2 mm pitch size) 2x front panel connectors (for audio) Power connector for SATA drives (4 pins) LVDS and converter conntector

Jumpers for panel voltage and converter voltage select

1x Mini PCI Express expansion slot, full size

e.g. for Mini SATA (mSATA) flash memory cards [5]

supports PCIe 2.0, SATA 3G and USB 2.0

Environmental Specifications	Operating temperature range: $0{\sim}50^{\circ}\text{C}$ Relative humidity, non-condensing: $10{\sim}90\%$
Conformity Certifications	EMI: FCC, CE, BSMI, C-Tick Safety: CB, BSMI, ETL 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-guidelines: - EMV-guideline 89/336/EWG electromagnetic tolerance - LVD-guideline 73/23/EWG use of electric devices within certain voltage-limits
Further configuration options	It is possible to modify certain components of this basic configuration. Please refer to the "Shuttle Systems Configurator".
Warranty	24 Months Pick-Up-And-Return Service

#### [1] HDMI version supported

HDMI 1.4 is not supported by all LGA1155 processors. Some models support HDMI 1.3 only.

#### [2] Unified Extensible Firmware Interface (UEFI)

required when booting from hard disks larger than 2.2 TB under Windows 64 bit operating systems such as Windows 7, Windows Vista SP1 and Windows Server 2008/2003 SP1.

#### [3] Teaming Mode

The teaming function allows you to group both available network adapters together to function as a single adapter - a method of creating a virtual LAN. The benefit of this approach is that it enables load balancing and failover.

#### [4] Optional Wireless LAN module:

this Slim PC supports an optional WLAN module, which consists of a half-size Mini-PCle card with IEEE 802.11n functionality and an external antenna with appropriate antenna cable.

### [5] mini-SATA (mSATA)

not to be confused with the "micro SATA" connector, is a newer industry standard which converts the electrical SATA interface (1.5 or 3.0 Gbit/s) to the pysical "Mini PCI Express" mini card form factor.

### **Shuttle DS61 Series Product Comparison**

Model	Туре	OS	RAM	SSD	Order no	Bar code
DS61	Barebone	-	-	-	PIB-DS61011	811686004202
D 6100B	System	Confi	gurable	(BTO)	PIK-D0610B01	-
D 6100BA	System	Windows 7 Professional	4 GB	64 GB SSD	PIT-D0610BA1	4046047102570
D 6100XA	System	-	4 GB	64 GB SSD	PIC-DS61011	4046047102549

## 2<sup>rd</sup> Generation Intel Core Processor Family (max. 65W)

LGA1155 socket "32nm Sandy Bridge" processor overview (Date: April 2013)

Name	Model	Cores	HT	Clock	Turbo	Cache	TDP	Graphics	<b>Graphics clock</b>
	G440	1	-	1.6 GHz	-	1 MB	35 W		650~1000 MHz
	G460	1	Yes	1.8 GHz	-	1.5 MB	35 W		650~1000 MHz
	G465	1	Yes	1.9 GHz	-	1.5 MB	35 W		650~1000 MHz
	G530	2	-	2.4 GHz	-	2 MB	65 W	HD	850~1000 MHz
	G530T	2	-	2.0 GHz	-	2 MB	35 W		650~1100 MHz
Celeron	G540	2	-	2.5 GHz	-	2 MB	65 W		850~1000 MHz
	G540T	2	-	2.1 GHz	-	2 MB	35 W		650~1000 MHz
	G550	2	-	2.6 GHz	-	2 MB	65 W		850~1000 MHz
	G550T	2	-	2.2 GHz	-	2 MB	35 W	HD	850~1000 MHz
	G555	2	-	2.7 GHz	-	2 MB	65 W	HD	850~1000 MHz
	G620T	2	-	2.2 GHz	-	3 MB	35 W	HD	650~1100 MHz
	G620	2	-	2.6 GHz	-	3 MB	65 W	HD	850~1100 MHz
	G622	2	-	2.6 GHz	-	3 MB	65 W	HD	850~1100 MHz
	G630	2	-	2.7 GHz	-	3 MB	65 W	HD	850~1100 MHz
	G630T	2	-	2.3 GHz	-	3 MB	35 W	HD	650~1100 MHz
	G632	2	-	2.7 GHz	-	3 MB	65 W	HD	850~1100 MHz
	G640	2	-	2.8 GHz	-	3 MB	65 W	HD	850~1100 MHz
Pentium	G640T	2	-	2.4 GHz	-	3 MB	35 W	HD	650~1100 MHz
	G645	2	-	2.9 GHz	-	3 MB	65 W	HD	850~1100 MHz
	G645T	2	-	2.5 GHz	-	3 MB	35 W	HD	650~1100 MHz
	G840	2	-	2.8 GHz	-	3 MB	65 W	HD	850~1100 MHz
	G850	2	-	2.9 GHz	-	3 MB	65 W	HD	850~1100 MHz
	G860	2	-	3.0 GHz	-	3 MB	65 W	HD	850~1100 MHz
	G860T	2	-	2.6 GHz	-	3 MB	35 W	HD	650~1100 MHz
	G870	2	-	3.1 GHz	-	3 MB	65 W	HD	850~1100 MHz
	2100T	2	Yes	2.5 GHz	-	3 MB	35 W	HD 2000	650~1100 MHz
	2100	2	Yes	3.1 GHz	-	3 MB	45 W	HD 2000	850~1100 MHz
	2102	2	Yes	3.1 GHz	-	3 MB	65 W	HD 2000	850~1100 MHz
Core i3	2105	2	Yes	3.1 GHz	-	3 MB	65 W	HD 3000	850~1100 MHz
001013	2120	2	Yes	3.3 GHz	-	3 MB	45 W		850~1100 MHz
	2120T	2	Yes	2.6 GHz	-	3 MB	35 W	HD 2000	650~1100 MHz
	2125	2	Yes	3.3 GHz	-	3 MB	65 W	HD 3000	850~1100 MHz
	2130	2	Yes	3.4 GHz	-	3 MB	65 W		850~1100 MHz
	2390T	2	Yes	2.7 GHz	3.5 GHz	3 MB	35 W		650~1100 MHz
	2400S	4	-	2.5 GHz	3.3 GHz	6 MB	65 W		850~1100 MHz
Core i5	2405S	4	-	2.5 GHz		6 MB		HD 3000	850~1100 MHz
	2500T	4	-	2.3 GHz		6 MB		HD 2000	650~1250 MHz
	2500S	4	-	2.7 GHz	3.7 GHz	6 MB	65 W		850~1100 MHz
Core i7	2600S	4	Yes	2.8 GHz		8 MB		HD 2000 Hyper Threa	850~1100 MHz

K = unlocked, S = Performance optimized lifestyle, T = Power optimized lifestyle, HT = Hyper Threading (SMT). Intel HD graphics HD 3000/2000 supports 12/6 Execution Units (Shader-Quads) and DirectX 10.1.

Certain processor models do not include integrated graphics.

Please refer to the support list for detailed processor support information at global.shuttle.com.

### 3<sup>rd</sup> Generation Intel Core Processor Family (max. 65W)

LGA1155 socket "22nm Ivy Bridge" processor overview (Date: April 2013)

Name	Model	Cores	НТ	Clock	Turbo	Cache	TDP	Graphics	Graphics clock
	G1610	2	-	2.6 GHz	-	2 MB	55 W	HD	650~1050 MHz
Celeron	G1610T	2	-	2.3 GHz	-	2 MB	35 W	HD	650~1050 MHz
	G1620	2	-	2.7 GHz	-	2 MB	55 W	HD	650~1050 MHz
	G2010	2	-	2.8 GHz	-	3 MB	55 W	HD	650~1050 MHz
	G2020T	2	-	2.5 GHz	-	3 MB	35 W	HD	650~1050 MHz
Pentium	G2020	2	-	2.9 GHz	-	3 MB	55 W	HD	650~1050 MHz
rendum	G2100T	2	-	2.6 GHz	-	3 MB	35 W	HD	650~1050 MHz
	G2120	2	-	3.1 GHz	-	3 MB	55 W	HD	650~1050 MHz
	G2130	2	-	3.2 GHz	-	3 MB	55 W	HD	650~1050 MHz
	3210	2	Yes	3.2 GHz	-	3 MB	55 W	HD 2500	650~1050 MHz
	3220T	2	Yes	2.8 GHz	-	3 MB	35 W	HD 2500	650~1050 MHz
Core i3	3220	2	Yes	3.3 GHz	-	3 MB	55 W	HD 2500	650~1050 MHz
Core is	3225	2	Yes	3.3 GHz	-	3 MB	55 W	HD 4000	650~1050 MHz
	3240	2	Yes	3.4 GHz	-	3 MB	55 W	HD 2500	650~1050 MHz
	3240T	2	Yes	2.9 GHz	-	3 MB	35 W	HD 2500	650~1050 MHz
	3330S	4	-	2.7 GHz	3.2 GHz	6 MB	65 W	HD 2500	650~1100 MHz
	3350P	4	-	3.1 GHz	3.3 GHz	6 MB	69 W	-	-
	3450S	4	-	2.8 GHz	3.5 GHz	6 MB	65 W	HD 2500	650~1100 MHz
	3470T	4		2.9 GHz	3.6 GHz	3 MB	35 W	HD 2500	650~1100 MHz
Core i5	3470S	4	-	2.9 GHz	3.6 GHz	6 MB	65 W	HD 2500	650~1100 MHz
	3475S	4	-	2.9 GHz	3.6 GHz	6 MB	65 W	HD 4000	650~1100 MHz
	3550S	4		3.0 GHz	3.7 GHz	6 MB	65 W	HD 2500	650~1150 MHz
	3570S	4	-	3.1 GHz	3.8 GHz	6 MB	65 W	HD 2500	650~1150 MHz
	3570T	4	-	2.3 GHz	3.3 GHz	6 MB	45 W	HD 2500	650~1150 MHz
Core i7	3770T	4	Yes	2.5 GHz	3.7 GHz	8 MB	45 W	HD 4000	650~1150 MHz
Core ii	3770S	4	Yes	3.1 GHz	3.9 GHz	8 MB	65 W	HD 4000	650~1150 MHz

K = unlocked, S = Performance optimized lifestyle, T = Power optimized lifestyle, HT = Hyper Threading (SMT).

Intel HD graphics HD 4000/2500 features 16/6 Execution Units (Shader-Quads) and supports DirectX 11/OpenGL 3.1.

Certain processor models do not include integrated graphics.

Please refer to the support list for detailed processor support information at global.shuttle.com.

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