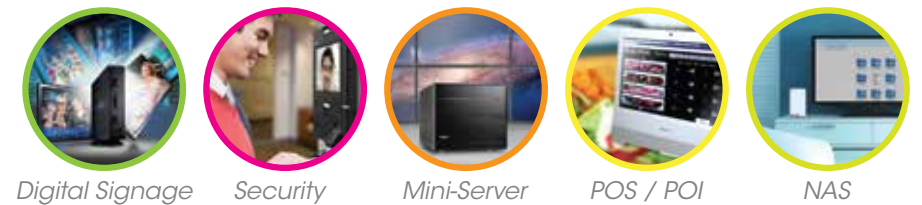


# Shuttle®



## **Product Guide 2013**

**Superb for Home, Work, Business and Industrial applications**





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## About Shuttle

Established in 1983 Shuttle Inc. is based in Taiwan with an extensive worldwide network of subsidiaries, resellers, partners, and suppliers. With over 30 years in desktop relative design, manufacture and work with Intel, AMD and NVIDIA; Shuttle is affirmed the superior quality of products and services. Keeping the "Innovation, Quality, Integrity, and Service" in mind, Shuttle continually produces the best quality products to meet our customer's needs. Due to the advanced thermal technology and mechanical design, Shuttle not only makes the product prices more competitive, but also has received numerous international awards and ISO9001, ISO9002 and ISO 14000 certification.



Since the first mini-PC announced in 2001, Shuttle Inc. is recognized as an industry leading designer and manufacturer of small form factor (SFF) computers and accessories for consumer and commercial sector. Experienced in small form factors and thermal technology, Shuttle extends the application of XPC to commercial/vertical market such as Digital Signage, Point-Of-Sales, Kiosk, and Access control business solution. Shuttle offers a balanced hardware for Digital Signage, POI&POS, and KIOSK for customers unlike other industrial PCs which are costly, we offer cost effective and the most flexible commercial solution to our customers. Cloud computing is the stage in the Industry's evolution. Based on Shuttle's R&D experience, Shuttle has taken a leap into private cloud storage market and introduced a new NAS brand called OMNINAS. This product not only meets the trend of the cloud computing, but also makes the product line development more diversified. All types of products use the highest quality materials and parts, with excellent cooling technology and low-power consumption.

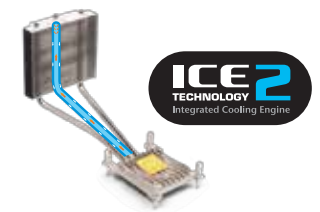
Find what you are looking to increase your competitiveness in business; Shuttle will provide the most user friendly solution for you.



## Shuttle Unique Features

### Always Cooled

Shuttle's Slim Series model and All-in-One model both use highly effective heat pipe cooling design. The XPC adopts Shuttle's exclusive I.C.E. (Integrated Cooling Engine) heat pipe technology combined with heat conduction, heat convection, thermal radiation principles, and precisely vent design, so that waste heat inside the computer can be quickly removed to maintain stability for the long-term operation and to extend the life of the equipment used.



### Always Slim and Compact

To meet the diverse vertical market demands, Shuttle provides customers with a flexible options, including the Slim Series, All-in-One, and XPC models. With over 30 years of experience in small form factors, especially expert in cooling designs for small and slim PCs and use all solid state capacitors, the full line of Shuttle models feature compact design still provide powerful performance and high stability.



### Always Green

Shuttle's digital signage models use an exclusive low-power, low-noise design. All tests for energy consumption meet international energy saving standards and the power-saving requirement of the 2013 ErP Lot 6 (Energy-related Products Lot 6). The fanless models also produce almost no noise. For cooling fan models, the tested noise levels are lower than 30dBA cooling in an anechoic chamber. These designs allow the systems to operate with low-noise and high stability operating environment.



### 24/7 Nonstop Operation

All of Shuttle's digital signage models are capable of continuous 24/7 long-term operation. These models are also integrated with Shuttle's exclusive low-power, noise-reducing design. In addition, all XPC models have received the 80PLUS Certification. 80 PLUS is an initiative to promote energy efficiency in computer power supply units (PSU). With all these features, Shuttle's models provide a stable operating environment and energy savings, making them well-suited to the vertical market.



### Support Multimedia Formats

Shuttle uses dual-core high performance processors to allow customers smoothly play a variety of full high-definition videos. The High-end Shuttle models can even be used in video wall, providing customers with the best solutions for multiple digital signage applications.



### The Watchdog - Protecting System Security

The full range of Shuttle's digital signage players are equipped with watchdog functions to provide excellent security protection for digital signage systems that need to operate continuously for a long period of time. The systems can thus quickly recover normal operating status, so that customers can have peace of mind and safely set up digital signage systems in a variety of application environments.



Note: All of Shuttle's computer products have passed power loop, endurance, high and low operational temperature loop, structural strength, durability, and thermal shock+vibration tests in an environment with ambient temperatures between 0°C~50°C (0°C~40°C for fanless models).

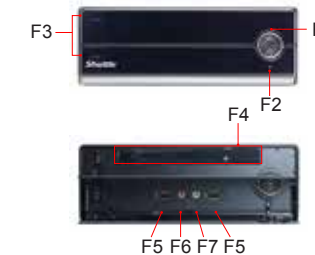


DS61 V1.1 Front Panel



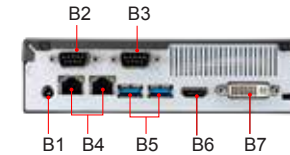
- F1. Power Button
- F2. USB2.0 Ports
- F3. Power LED
- F4. HDD LED
- F5. Mic-In
- F6. Headphone
- F7. SD Card Reader

XH61V Front Panel



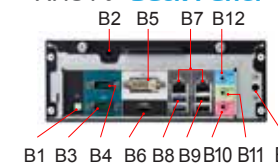
- F1. Power Switch / Power LED
- F2. HDD LED
- F3. ODD and Front I/O Bay
- F4. Slim ODD Bay
- F5. USB2.0 Ports
- F6. Mic-In
- F7. Headphone

DS61 V1.1 Back Panel



- B1. DC IN
- B2. RS232/RS422/RS485
- B3. RS232
- B4. LAN Ports
- B5. USB3.0 Ports
- B6. HDMI Port
- B7. DVI-I Port

XH61V Back Panel



- B1. S/PDIF Out Port
- B2. Kensington® Lock Port
- B3. COM1 Port (RS232/RS422/RS485)
- B4. COM2 Port (RS232)
- B5. DVI-I Port
- B6. HDMI Port
- B7. LAN Ports
- B8. USB3.0 Ports
- B9. USB2.0 Ports
- B10. Mic-In Port
- B11. Line-Out Port
- B12. Line-In Port
- B13. DC Power Port

Specification

	DS61 V1.1	XH61V
Supported Processor	Intel® 2nd / 3rd Generation LGA1155 Socket Intel® Core i3/i5/i7, Pentium®, Celeron® processor Supports Sandy Bridge™ 65W CPU / Ivy Bridge™ 65W CPU	
Chipset	Intel® H61 Express	
Video Engine Processor	Intel® HD Graphics Series integrated in CPU (Dynamic Video Memory)	
Memory	2x DDR3 1333 MHz, Max. 16GB	
Internal Storage	SATA 3G interface / SDHC card interface	SATA 3G interface
Storage Bays	1x 2.5" HDD or SSD	1x 2.5" HDD or SSD 1x 12.7mm Slim ODD
Audio	HD 2 channel	HD 5.1 channel
Network	10/100/1000 Mbps Ethernet (2x RJ45, support Teaming) 802.11 b/g/n WIFI controller (optional, support mini PCI-e Wireless LAN Module)	
I/O	Video	(1) HDMI, (1) DVI-I
	Audio / Mic	(1) 3.5mm Lin out, (1) 3.5mm MIC in
	USB 3.0 / USB 2.0	(2) USB3.0, (4) USB2.0
	RS232	(1) RS-232, (1) RS232 / RS422 / RS485, Support 5V & 12V
Mini-PCIE	Full-Size Mini-PCIE slot support mSATA SSD or WLAN	Full-Size Mini-PCIE slot supports mSATA SSD Half-Size Mini-PCIE slot support WLAN
	Other	Power On After Power Failure / Resume From RTC / Resume From S3/S4 / Wake On LAN Support Wireless Antenna Ports x2 / Support External Power Switch Pin (DS61 V1.1 only) Support 2x holes for Kensington Lock / Support VESA mount / Support WatchDOG
Power Supply (Adapter)	100~240V AC (90W / DC19V, 4.74A)	
Operating system	Windows XP, Windows 7, Windows 8, Linux	
Certificate	CB, CE, BSMI, ETL, CCC, FCC, C-Tick, RoHS	
Dimension (L/W/H) mm	190 x 165 x 43	240 x 200 x 72
Weight	NW (kg)	1.3
	GW (kg)	2.05
Material	Metal	
Accessories (Optional)	WLN-S (WLAN kit)	PS01 (Stand) / PV02 (VESA mount kit) WLN-S (WLAN kit)

Core i7 High Performance Digital Signage Player: DS61 & XH61V series

Shuttle's 61 series are slim but powerful digital signage platform offering best quality, performance, and connectivity to meet the requirement of processing high quality digital media. These products adopt Shuttle's exclusively heat pipe cooling module with Smart Fan design, so energy consumption is as low as 90W and feature low-noise operation. These products are appropriate for installation in limit spaces to efficiently solve thermal problems. Shuttle's 61 series support the Intel® Sandy / Ivy Bridge Core™ i3/i5/i7 65W high-performance processors with built-in Intel® HD Graphics. These products also have built-in RS232 / RS422 / RS485 interfaces to meet a variety of application needs.

Flexible Choice of Processor to Meet Versatile Application Needs

Shuttle's 61 series products support 3rd Generation Intel® Core™ i3/i5/i7 processors. Processors with different performance levels can be selected to meet different needs, and improve performance.

Heat Pipe Cooling Technology

Shuttle's Smart fan heat pipe cooling module uses a copper block with a capillarity vacuum design to absorb heat inside the machine. Combined with precisely vent design, air flow circulation between the inside and outside of the machine can quickly move out the waste heat inside the machine to have high stability for long-term operation.



VESA Mount Capability

The compact body of the DS61 series has multiple screw holes specially designed on the side of the body. This design not only complies with international VESA Mount Standards, but also allows users to choose the most appropriate back hanging configuration and placement under different environments. This space saving capability is well-suited for application of digital signage with limited space.

Application Fields



Large LCD Digital Signage



Self-service Kiosk



Digital Whiteboard



Thin Client



Small office





DS47



### Full HD & Fanless Digital Signage Player - DS47

Shuttle's DS47 is an ultra slim but energy efficient for Full HD digital signage platform, built-in RS232/RS422/RS485, USB 2.0&3.0 and dual Gigabit-LAN dedicated interfaces, you can easily connect a variety of peripheral devices. The DS47 is equipped with Intel® high-performance Celeron dual-core processor, providing HDMI, DVI-I output interface, supporting dual display function; the exclusive integration of low-power design and fan-less cooling, body thickness of less than 40mm, only use 65W external power supply to keep system long time operation, and compared with traditional PC can also be reduced by nearly 40% noise. Customers can have lower energy consumption and reliable silent system for their digital signage solution.

### Fanless Design

Internally, the DS47 uses ideal cooling thermal module with cooling heat pipes that can transmit heat to the whole cooling module quickly and evenly. It can be achieved high cooling efficiency without cooling fans. Combined with precisely vent design, the waste heat inside the computer can be removed quickly and efficiently.

### Multiple I/O interfaces

Shuttle DS47 built-in RS232/RS422/RS485 dedicated interface, four USB 2.0 ports at the front panel, and two USB3.0 ports at the rear panel can easily connect to peripheral devices such as thermal printer, label printer and bar code scanner. It offers a wide range of vertical applications.

### VESA Mount Capability

The compact body of the DS47 has multiple screw holes specially designed on the side of the body. This design not only complies with international VESA Mount Standards, but also allows users to choose the most appropriate back hanging configuration and placement under different environments. This space saving capability is well-suited for application of digital signage with limited space.

### Application Fields



Full HD Digital Signage

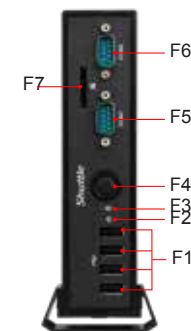
Self-service Kiosk

Thin Client

Small Office

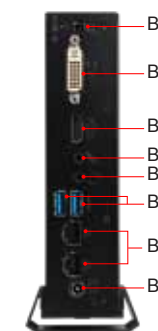


### DS47 Front Panel



- F1. USB2.0 Ports x4
- F2. Power LED
- F3. HDD LED
- F4. Power Button
- F5. COM 1 : Support RS232/RS422/RS485
- F6. COM 2 : Support RS232
- F7. SD Card Reader

### DS47 Back Panel



- B1. C-MOS Port
- B2. DVI-I Port
- B3. HDMI Port
- B4. Mic-In
- B5. Headphone
- B6. USB3.0 Ports x2
- B7. LAN Ports x2
- B8. DC IN

### Specification

		DS47
Integrated Processor		Intel® Celeron™ 847 processor Max. TDP: 17W
Chipset		Intel® NM70
Video Engine Processor		Intel® HD Graphics integrated in CPU
Memory		2x DDR3 1333 MHz, Max. 16GB
Internal Storage		SATA 6G interface / SDHC card interface
Storage Bays		1x 2.5" HDD or SSD / Full-Size Mini-PCIe slot supports mSATA SSD
Audio		HD 2 channel
Network		10/100/1000 Mbps Ethernet (2x RJ45) 802.11 b/g/n WIFI controller (mini PCI-e Wireless LAN Module)
I/O	Video	(1) HDMI, (1) DVI-I
	Audio / Mic	(1) 3.5mm Lin out, (1) 3.5mm MIC in
	USB 3.0 / USB 2.0	(2) USB3.0, (4) USB2.0
	RS232	(1) RS232, (1) RS232 / RS422 / RS485, Support 5V & 12V
Other		PoweOn After Power Failure / Resume From RTC / Resume From S3/S4 Wake On LAN / Support Wireless Antenna Ports x2 Support 2x holes for Kensington Lock /Support VESA mount /Support WatchDOG
	Power Supply (Adapter)	100~240V AC (65W / DC19V, 3.42A)
Operating system		Windows XP, Windows 7, Windows 8, Linux
Certificate		CB, CE, BSMI, ETL, CCC, FCC, C-Tick, RoHS
Dimension (L/W/H) mm		200 x 39.5 x 165
Weight		1.3
	NW (kg)	2.05
Material	GW (kg)	Metal + Plastic
Accessories		Stand, VESA mount kit

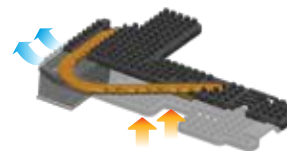


### Cost Effective Digital Signage Player - XS35 & XS36 series

The Shuttle's slim multimedia player XS35, XS36 series is an affordable solution with fanless design that can be applied in a number of business areas, such as POS, POI, and Digital Signage. The XS35, XS36 series is equipped with Intel® Cedar Trail-D platform technology, as well as an energy saving Intel® Atom™ dual-core processor. The ultra-slim design features a body compact of thickness only 38.5mm (XS35) or 36mm (XS36), with multiple interfaces to support diverse display outputs and peripherals such as standard VESA Mount, Gigabit-LAN, and USBs that provide excellent connections to peripheral equipments.

### Fanless Heat Pipe Cooling Technology

With Shuttle's cooling heat pipe, waste heat generated by various important components is transmitted to the whole cooling module quickly and evenly (in contrast to the fan cooling solutions used by notebooks). Combined with precisely vent design, this technology allows the waste heat inside the computer can be removed quickly without the use of cooling fans to maintain high stability for long-term operation.



### Energy Saving & Extremely Quiet

Shuttle's exclusive low-power design and fanless cooling module leads to a 34% to 38% reduction in noise during system operation as compared to regular computers. In addition, a mere 40 watts of power is sufficient to maintain normal system operation.

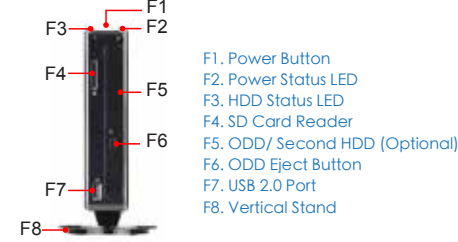
### Noise Comparison Table

	Idle Mode	Full load Mode
Regular computer(dBA)	27.6	32.4
Shuttle XS35 and XS36 series(dBA)	18.2	20.1
Reduction (%)	34%	38%

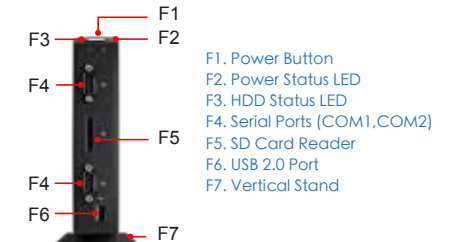
### Application Fields



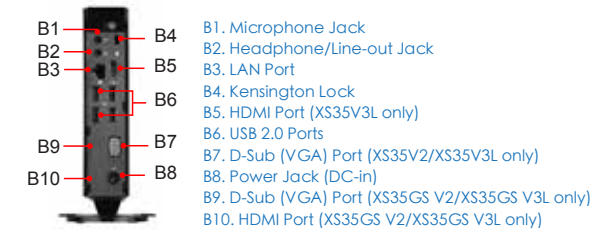
### XS35 series Front Panel



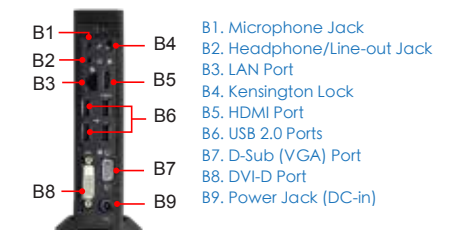
### XS36VL Front Panel



### XS35 series Back Panel



### XS36VL Back Panel



### Specification

	XS35V2	XS35GS V2	XS35V3L	XS35GS V3L	XS36VL
Integrated Processor	Intel® Atom™ D525 process		Intel® Atom™ D2550 process		
Chipset	Intel® NM10				
Video Engine Processor	Intel® GMA 3150	AMD Mobility Radeon™ HD7410M	Intel® GMA 3650	AMD Mobility Radeon™ HD7410M	Intel® GMA 3650
Memory	1x DDR3 800MHz · Max. 4GB		2x DDR3 1066 MHz · Max. 4GB		
Internal Storage	SATA 3G interface / SDHC card interface				
Storage Bays	1 x 2.5" HDD or SSD / 12.7mm Slim ODD bay				1 x 2.5" HDD or SSD
Audio	HD 2.1 channel				
Network	10/100/1000 Mbps Ethernet (1x RJ45) , 802.11 b/g/n WIFI controller				
I/O	Video	(1) VGA	(1) VGA, (1) HDMI		(1) VGA, (1) HDMI, (1) DVI-D
	Audio / Mic	(1) 3.5mm Lin out, (1) 3.5mm MIC in			
	USB 2.0	(5) USB2.0			
	RS232	N/A			(2) RS232
Other	Power On After Power Failure / Resume From RTC / Resume From S3/S4 Wake On LAN (XS35V3L, XS35GS V3L, XS36VL only) / Support 1x holes for Kensington Lock Support VESA mount / Support WatchDOG				
Power Supply (Adapter)	100~240V AC (40W / DC19V, 2.1A)				
Operating system	Windows XP, Windows 7, Linux		Windows 7 32bit	Windows XP Windows 7, Linux	Windows 7 32bit
Certificate	CB, CE, BSMI, ETL, CCC, FCC, C-Tick, RoHS				
Dimension (L/W/H) mm	252 x 38.5 x 162				200 x 36 x 160
Weight	NW (kg)	2.1			1.6
	GW (kg)	2.8			2.3
Material	Plastic				
Accessories (Optional)	PV01 (VESA mount kit) PHD2 (Support second hard disk drive accessory)				PV03 (VESA mount kit)

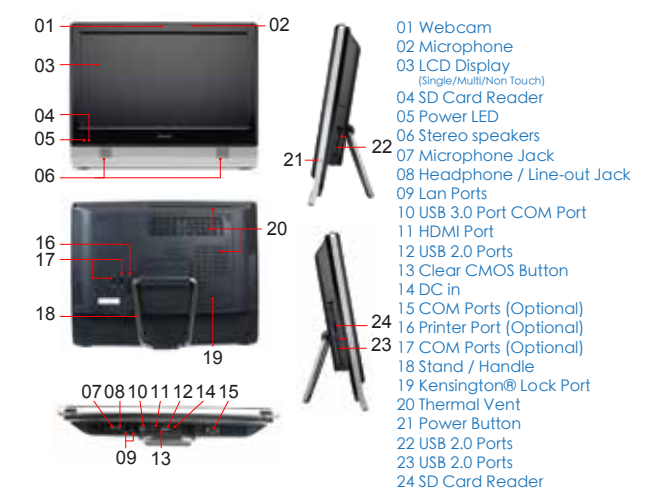




X50 series Front/Rear/Side Panel



X70 series Front/Rear/Side Panel



Specification

	X50V2 PL	X50V2 Plus	X50V3L	X70S/M/N
Supported Processor	Intel® Atom™ D525 processor		Intel® Atom™ D2550 processor	Intel® 2nd / 3rd Generation LGA1155 Socket Intel® Core i3/i5/i7, Pentium®, Celeron® processor Supports Sandy Bridge™ 65W CPU Ivy Bridge™ 65W CPU
Chipset	Intel® NM10			Intel® H61 Express
Video Engine Processor	Intel® GMA 3150		Intel® GMA 3650	Intel® HD Graphics Series integrated in CPU (Up to 1GB DRAM)
Memory	2x DDR3 800 MHz · Max. 4GB		2x DDR3 1066 MHz Max. 4GB	2x DDR3 1066/1333 MHz, Max. 16GB
Internal Storage	1x 2.5" SATA 3G HDD or SSD / SDHC card reader			
Panel	15.6" LED, 1366 x 768	15.6" LED, 1366 x 768 Single touch		18.5" LED, 1366 x 768 X70S, Single touch / X70M, Multi touch / X70N, without touch
Audio	HD 2 channel, 2x 2W internal Stereo Speak			
Webcam	Yes			
Microphone	Yes			
Network	10/100/1000 Mbps Ethernet (1x RJ45) 802.11 b/g/n WIFI controller			10/100/1000 Mbps Ethernet (2x RJ45) 802.11 b/g/n WIFI controller
I/O	Video	(1) D-Sub	(1) D-Sub	(1) HDMI, (1) D-Sub
	Audio / Mic	(1) 3.5mm Lin out, (1) 3.5mm MIC in		
	USB 3.0 / USB 2.0	(4) USB2.0		(2) USB3.0, (6) USB2.0
	RS232	Optional		(1) RS232
Other	Power On After Power Failure / Resume From RTC / Resume From S3/S4 / Wake On LAN Support 1x holes for Kensington Lock / Support VESA mount / Support WatchDOG			
Power Supply (Adapter)	100~240V AC (40W / DC19V, 2.1A)			100~240V AC (120W / DC19V, 6.32A)
Operating system	Windows XP, Windows 7, Linux		Windows 7 32bit	Windows XP, Windows 7 Windows 8, Linux
Certificate	CB, CE, BSMI, ETL, CCC, FCC, C-Tick, RoHS			
Dimension (L/W/H) mm	391.3 x 327 x 42			468 x 364 x 57
Weight	NW (kg)	2.92		4.6
	GW (kg)	4.2		6.5
Color	Black / White			Silver
Accessories (Optional)	PCL68 (RS232 / LPT port accessory)		PCL69 (RS232 / LPT port accessory)	PCL70 (RS232 / LPT port accessory)

All-in-One Touch for Business Solution- X50 & X70 series

Shuttle's All-in-One X50 and X70 series can be applied in a variety of business areas, such as POS, POI, KIOSK, control system, queuing machine and communication platform. Both the X50 and X70 series models support touch function\* and adopt a compact and stylish design, built-in the multiple I/O interfaces, makes it easy to connect various peripheral. At the rear panel, machine support VESA Mount capability, body designed meet VESA Mounting Interface standard. The internal design adopts a heat pipe cooling module and smart energy saving design. The X50 series further uses a fanless design to not only satisfy the demands of high operational stability but also reduce customers' maintenance costs.

\*Note: The X50V2 PL and X70N do not support touch function.

Heat Pipe Cooling Design

Shuttle's All-in-one uses ideal cooling thermal module with cooling heat pipes that can transmit heat to the whole cooling module quickly and evenly. Combined with precisely vent design, the waste heat inside the computer can be removed quickly to maintain cool operation of the system.



24/7 Nonstop Operation and Energy Saving

All of Shuttle's All-in-one have passed stability testing for 24/7 nonstop operation. By integrating Shuttle's low-power design, equipped with new Intel® dual-core processors, can be effectively reduced the costs of operation.

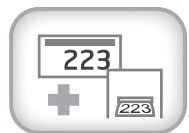


A Variety of Expansion Interfaces for Easy Connection to Peripherals

Shuttle's All-in-one models provides multiple I/O ports such as USB ports, and RS232/LPT can also be added to satisfy customers' need to easily connect to various peripherals. These models can be widely used in vertical application such as POI, POS, KIOSK, Queuing system and Digital Signage.



Application Fields



Queuing System



Retail POS



Public-web KIOSK



Information KIOSK



Intercom System



SZ87R6

### Reliable and Powerful Mini-PC—The XPC series

Although the external appearance of Shuttle's industry-wide famous XPC series is only 1/3 size of a traditional tower PC, XPC series can achieve the same performance as regular computers with high durability. XPC series are also equipped with Shuttle I.C.E.2, which can quickly remove heat to the outside of the machine. XPC series support new generation Intel® processors and provide a variety of I/O interfaces for strong expandability. XPC series not only can meet the vertical applications such as digital signage and video walls, they can also be applied to mini server applications.

### Integrated Cooling Engine 2 (I.C.E. 2) Heat Pipe Technology

Shuttle Integrated Cooling Engine 2 (I.C.E. 2) uses convection cooling to dissipate heat away from and around the CPU. The copper tubes coated in nickel enhances tube hardness and rust-proof protection are filled with distilled water, effectively channels heat away, providing high efficiency processor and chassis cooling.



### 80 Plus Certified Power Supply - Energy Saving & Quiet

XPC series are equipped with an 80 Plus power supply that features high efficiency and energy saving. Full system load testing for all models yields results below 30dBA in anechoic chamber. Optimal effects can be achieved for applications under various environments.



### Dual-slot Graphics Card Support and Strong Expandability

XPC series support dual-slot or single-slot graphics cards. The SX79R5 has a 6+8pin power connector to support high-end graphics card such as AMD Radeon™ HD 7970, and NVIDIA® GeForce® GTX 680. In addition to built-in up to 10 USB ports and optional expansion card with RS232 interface, XPC series provides excellent support and a wide range of expansion for applications such as digital signage with video walls.

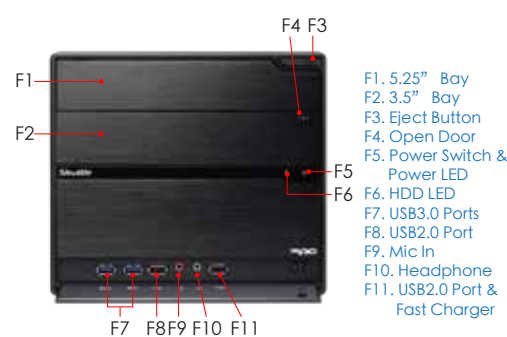
\* The largest volume of graphics cards supported is 273x98x42 (LxHxD)



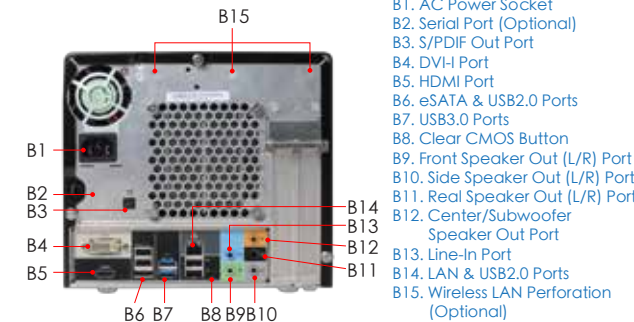
### Application Fields



### XPC series Front Panel



### XPC series Back Panel



### Specification

	SH61R4	SZ77R5	SX79R5	SH87R6	SZ87R6
Supported Processor	Intel® 2nd / 3rd Generation LGA1155 Socket Intel® Core i3/i5/i7, Pentium®, Celeron® processor Supports Sandy Bridge™ 95W CPU Ivy Bridge™ 95W CPU	Intel® 2nd Generation LGA2011 Socket Intel® Core i7 / i7 Extreme Edition processor	Intel® 4th Generation LGA1150 Socket Intel® Core i3/i5/i7 Max TDP 95W CPU		
Chipset	Intel® H61 Express	Intel® Z77 Express	Intel® X79 Express	Intel® H87 Express	Intel® Z87 Express
Graphics	Integrated in CPU / Add on VGA Card	Add on VGA Card	Integrated in CPU / Add on VGA Card		
Memory	2x DDR3 1333MHz Max. 16GB	4x DDR3 1333/1600 MHz · Max. 32GB			
Storage Interface	SATA 3G	SATA 3G / 6G	SATA 6G		
Storage Bays	2x 3.5" HDD or SSD / 1x 5.25" ODD bay				
Expansion Slots	1x PCI-Ex1, 1x PCI-Ex16 1x Mini PCI-E	1x PCI-Ex4, 1x PCI-Ex16 1x Mini PCI-E (mSATA) 1x Mini PCI-E (half size)	2x PCI-Ex16 1x Mini PCI-E (mSATA) 1x Mini PCI-E (half size)	1x PCI-Ex1, 1x PCI-Ex16 1x Mini PCI-E (mSATA) 1x Mini PCI-E (half size)	
Audio	HD 5.1 channel	HD 7.1 channel			
Network	10/100/1000 Mbps Ethernet (1x RJ45)	10/100/1000 Mbps Ethernet (2x RJ45)	10/100/1000 Mbps Ethernet (1x RJ45)	10/100/1000 Mbps Ethernet (2x RJ45)	
Video	(1) DVI-D, (1) DVI-I	(1) DVI-I, (1) HDMI	N/A	(1) DVI-I, (1) HDMI	
Headphone / Mic	(1) 3.5mm Lin out, (1) 3.5mm MIC in				
S/PDIF Out	N/A	1			
USB 3.0 / USB 2.0	2 / 8	4 / 6	2 / 8	4 / 6	
eSATA	N/A	1			
Other	Wake On LAN / Support 1x holes for Kensington Lock / Support Watch DOG				
Power Supply	250W	500W 80 Plus	300W 80 Plus	500W 80 Plus	
Operating system	Windows XP, Windows 7, Windows 8, Linux				
Certificate	CB, CE, BSMI, ETL, CCC, FCC, C-Tick, RoHS				
Dimension (L/W/H) mm	325 x 215 x 190		332 x 216 x 198		
Weight	NW (kg)	3.2	3.5		
	GW (kg)	5	5		
Material	Aluminum				
Accessories (Optional)	WLN-C (WLAN kit) PHD3 (Accessory for Cube XPC 3.5" to 2.5 HDD rack) J-RS232 (RS232 daughter board for Cube XPC) PC61J (300W 80Plus Power Supply) PC63J (500W 80Plus Power Supply)				





HR70

### All-in-One Face Recognition Solution: The HR70

Shuttle's HR70 face recognition system is an All-in-One model built-in full high definition dual cameras. The face recognition angle is dual-axis ± 15 degrees to provide non-invasive, non-contact smart face recognition. The HR70 built-in RS232, RS485, and GPIO controllers support various related peripherals and to provide versatile system application capabilities. For small & medium business, government, banks, education and research institutions, and communities, the HR70 is the best solution for attendance systems and entry access control.

### Rapid and Accurate Identification Capability

Shuttle's HR70 is equipped with Intel® high-performance dual-core processor that effectively enhances its database search and facial recognition capabilities. As for its identification success rate, the system's FAR (False Acceptance Rate) is less than 0.01%, and its FRR (False Rejection Rate) is less than 1.9%. In addition, the HR70 has built-in LED light that provides fast and highly accurate identification ability in low-light environment. According to the lighting condition, users can turn on/off LED light function at any time.

### Flexible Multifunction Configuration

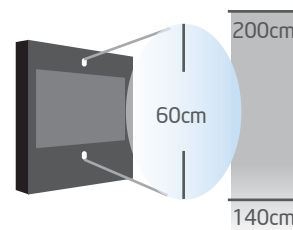
Shuttle's HR70 has built-in full high-definition dual cameras. Based on distance of 60cm, the HR70 can detect a range of 60cm from top to bottom (about the height of individuals ranging from 140cm to 200cm in height); its face recognition angle is dual-axis ± 15 degree (shot from the side, or from above or below). In addition, users can also choose to configure the system with a fingerprint reader or RFID card reader to provide more flexible configuration for different systems to be used to various environmental requirements.

### Multiple Interfaces

In order to provide more versatile systems application capacity, Shuttle's HR70 is built-in RS232, RS485, and GPIO controllers that support a variety of related peripherals. Among these controllers, GPIO can be used in access control systems that allow users to strictly control the safety of access.

### Application Fields

- Time and Attendance
- Access Control
- Verification and Identification for School Security



### Software Spec

Items	Content	
Operating System	Ubuntu Linux	
Face Recognition	detection height range	Up to down 60cm, based on distance 60cm
	Recognition speed	2-3 second.
	Recognize rate	FAR default 0.01% / FRR 1.9 %(under FAR 0.01%)
	Face Angle	Two axis ±15degree
	Standards	ISO/IEC19794-5:2005
Fingerprint recognition	Optical fingerprint verification and identification	
RFID reader support	Support Mifare contactless card	
Multi-Recognition	Face / Face+fingerprint / Face+ RFID / Face+Fingerprint+ RFID	
Access control	Dry contact output. Normal open.	
Webcam	Build in two Full-HD cameras. Cameras recognize at the same time.	
Management	System information / System setting / User management / Log Update / Import/export / Device test	

### Hardware Spec

	HR70	
Integrated Processor	Intel® Celeron™ 847 processor, Max. TDP: 17W	
Chipset	Intel® NM70	
Video Engine Processor	Intel® HD Graphics integrated	
Memory	2GB DDR3	
Internal Storage	32GB mSATA SSD	
Panel	7", 16:9,LED, 1024 x 600, Single Touch	
Audio	1x 2W internal mono Speaker, 1x internal Electret Condenser Microphone	
Webcam	2x Full HD camera	
Network	10/100/1000 Mbps Ethernet (1x RJ45), 802.11 b/g/n WIFI controller (Optional)	
I/O	Video Out	(1) HDMI
	Audio / Mic	(1) 3.5mm Lin out, (1) 3.5mm MIC in
	USB 3.0 / USB 2.0	(1) USB3.0, (1) USB2.0
	RS232	(1) RS232, (1) RS485
	GPIO	(2) Form A contact Relay output(Max. 2A@120VAC/24VDC) , (2) Digital In dry contact
	Optional	RFID Card reader (Optional), Fingerprint reader (Optional)
Other	200 Lux LED Light, Power On After Power Failure, Wake On LAN, Support VESA mount Contactless Card reader support ISO14443A/B, Fingerprint reader support ISO19794-2	
Power Supply	100~240V AC (with 65W external adapter)	
Certificate	CE, BSMI, ETL, CCC, FCC	
Dimension (L/W/H) mm	230 x 195 x 31/ 230 x 255 x 49 (with docking)	
Weight	NW (kg)	0.81 / 1.01 (with docking)
	GW (kg)	1.63 / 1.83 (with docking)
Material	Plastic	



### Store and Share the Great Moments in Life with OMNINAS

Shuttle's NAS product line called "OMNINAS" consists of network attached-storage devices that feature powerful data storage, backup, security and multiple servers. What really makes them stand out from the crowd is they are designed to become your hub of multimedia content to make sure you have your files always with you - be it on the go on Android or iOS-based devices or basically from any place in the world.

### Convenient Hot Swap Function

The OMNINAS has a unique HDD tray design that simplifies HDD installation and also supports the One-button Hot-Swap function.

#### ☑ RAID 1

In RAID 1 mode, just press the hardware button, wait for a few seconds, then a backup HDD can easily be replaced in a running system. This feature also provides HDD data safety backup protection.

### Hotspot Function

The OMNINAS is a built-in Wireless AP that supports the Hotspot function. Thanks to this, the OMNINAS extends its application environment to the wireless network and all Wi-Fi compatible devices at home or in the office and makes digital content accessible worldwide. You can search and access the NAS database directly and experience its convenience wirelessly.

\*Wireless AP depending on model.

### Superb Transfer Performance

The OMNINAS offers superb transfer performance with speeds of up to 110MB/s. It allows multiple users to access the data simultaneously and is designed specifically for small offices, workgroups or home use.

\*Transfer performance depending on model and system environment.



### 1. Acronis True Image backup software

The OMNINAS models come bundled with a copy of Acronis True Image Personal Edition software. This utility provides powerful data backup capabilities that support full backups or selected backups of key files, enhanced flexibility and convenience of data backups.



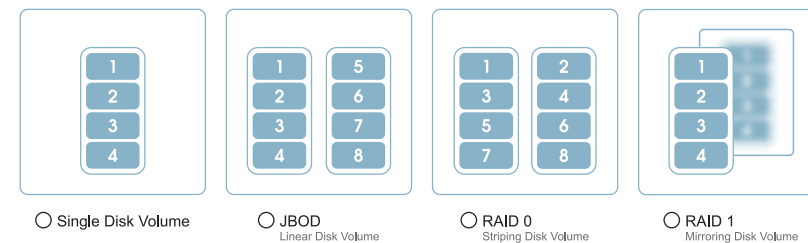
### 2. USB 3.0 & SD Card Reader

The OMNINAS comes with USB 3.0 high-speed ports that boast transfer rates of up to 5.0Gbps (640Mbyte/sec) which is around 10 times faster than USB 2.0. The built-in SD card reader with "Auto Copy" function stores digital content such as photos and videos quickly and conveniently to the NAS.



### 3. Supports RAID 0/1/JBOD modes

The OMNINAS supports RAID 0, RAID 1 and JBOD mode. You can choose freely which mode is right for you - highest read/write performance (RAID 0), best data protection (RAID 1) or largest useful capacity (JBOD).



### 4. Energy-saving and Green Power design

The OMNINAS design conforms to international IEEE802.3az Energy-Efficient Ethernet standard and the minimum power consumption of only 9W. The eco-friendly Green Power design of the OMNINAS saves energy and costs at the same time.

\* Minimum power consumption depending on model.



### 5. Powerful & Multiple server functions

#### ☑ Print Server

The OMNINAS works as a print server. Simply connect a printer to the NAS to share copies over the network.

#### ☑ iTunes Server

Creating an iTunes server based on an OMNINAS is easy and lets you play back media content and stream it directly on to your devices with iTunes clients over a network.

#### ☑ DLNA Media Server - Twonky

The integrated Twonky DLNA Media Server software automatically sorts all the media stored on the NAS (photos, videos, music), so you no longer need to spend time organizing all the files. High compatibility with other DLNA devices and support for a wide range of multimedia formats enables the OMNINAS to easily play more multimedia contents.



TWONKY SERVER™

### 6. Excellent cooling design

The OMNINAS uses 2.5mm thick stylish aluminium for its casing which not only blends with the design of your home environment, it also is of technical benefit and serves as a smart low-noise cooling system. In order to ensure a reliable and quiet usage environment, the fan speed is adjusted automatically.





**Hardware Spec**

	KD22	KD21	KD20
CPU	Marvell 88F6707 1.2GHz SOC	Marvell 88F6707 1.0GHz SOC	PLX 7821/750Mhz dual-core
HDD	2 x 3.5" HDD or 2x 2.5" HDD/SSD	2 x 3.5" HDD or 2x 2.5" HDD/SSD	2 x 3.5" HDD or 2x 2.5" HDD/SSD
Lockable HDD Tray	Yes	Yes	Yes
OS	Embedded Linux	Embedded Linux	Embedded Linux
Largest single HDD capacity supported	> 4TB	> 4TB	> 4TB
DRAM	512MB DDR3	512MB DDR3	256MB DDR2
NAND	1Gb	1Gb	1Gb
USB 2.0	1 (flash drive, external HDD, hub, printer, digital camera, etc.)	1 (flash drive, external HDD, hub, printer, digital camera, etc.)	2 (flash drive, external HDD, hub, printer, digital camera, etc.)
USB 3.0	2 (front panel) (flash drive, external HDD, hub, printer, digital camera, etc.)	2 (front panel) (flash drive, external HDD, hub, printer, digital camera, etc.)	1 (front panel) (flash drive, external HDD, hub, printer, digital camera, etc.)
Card Reader	1 (front panel) SD Card	1 (front panel) SD Card	1 (front panel) SD Card
10/100/1000 Ethernet	1 (100 green, 1000 amber; access/link blinking green)	1 (100 green, 1000 amber; access/link blinking green)	1 (100 green, 1000 amber; access/link blinking green)
	IEEE 802.3az for Green Lan	IEEE 802.3az for Green Lan	N/A
Wireless Support	2.4 GHz operation frequency	N/A	N/A
	AP mode, IEEE 802.11 b/g/n	N/A	N/A
RAID	0, 1, JBOD	0, 1, JBOD	0, 1, JBOD
Support single HDD	Yes and single expansion	Yes and single expansion	Yes
Hot Swap	Yes	Yes	Yes
Hot Swap button (zero configuration)	1 for each HDD	1 for each HDD	1 for each HDD
RTC	Yes	Yes	Yes
Power Adaptor	65W	65W	65W
Alarm Buzzer	System Warning	System Warning	System Warning
Fan	Smart fan	Smart fan	Smart fan
Reset Button	Back panel	Back panel	Back panel
Power Button	Front panel	Front panel	Front panel
Secure lock	Kensington lock	Kensington lock	Kensington lock
Operation Temperature	0 - 40 °C	0 - 40 °C	0 - 40 °C
Operation Humidity	10-95%	10-95%	10-95%
Certification	CE, FCC, C-TICK, BSMI, CB, EUP Lot6, R&TTE	CE, FCC, C-TICK, BSMI, CB, EUP Lot6	CE, FCC, C-TICK, BSMI, CB, EUP Lot6
Chassis	Aluminum/Plastic	Aluminum/Plastic	Aluminum/Plastic
Size	169.8mm (H) x 90.0mm (W) x 225.0mm(L)	169.8mm (H) x 90.0mm (W) x 225.0mm(L)	169.8mm (H) x 90.0mm (W) x 225.0mm(L)
Weight	2716 g	2716 g	2716 g
Accessories	Power Adaptor (65W), AC Power Cord, Ethernet Cable, CD, QSG, HDD Screws	Power Adaptor (65W), AC Power Cord, Ethernet Cable, CD, QSG, HDD Screws	Power Adaptor (65W), AC Power Cord, Ethernet Cable, CD, QSG, HDD Screws

\*Performance depends on the testing environment

**Software Spec**

	KD22	KD21	KD20	
OS		Embedded Linux		
Supported OS		Microsoft Windows XP and above, Mac OS and Linux		
Mobile Device Access		iPhone, iPad, Android phone, Android tablet		
Supported Mobile OS		iOS 6.0 and above, Android 2.3 and above		
Mobile Device Application		App Store for iPhone & iPad, Google Play for Android phone & tablet		
Supported Browser		IE 8.0 or later, Firefox 3 or later, Safari 3 or 4 and Google Chrome		
Languages		12 (English, 繁體中文, 简体中文, 日本語, Deutsch, Français, Русский, Nederlands, Español, Italiano, Dansk, Türkçe)		
File System		Internal : XFS External: EXT2, EXT3, XFS, NTFS, FAT, FAT32		
Accessing Right Management		Users Management (Max. users: 256)	Users Management (Max. users: 50)	
		Folder Management (Max. shared folders: 256)	Folder Management (Max. shared folders: 20)	
LAN Configuration		Public/Private folders configuration		
		DHCP/Static IP		
Networking Services		Auto IP		
		Hostname/Group name		
Backup		Samba Server (File sharing)		
		DHCP client		
		USB Storage devices sharing		
		Printer Server		
		iTunes Server		
		Twonky DLNA Media Server		
		Apple File Protocol (AFP)		
		NTP for time synchronization		
		FTP / SSL FTP Server	-	
		Quick Copy for USB Storage devices (USB Storages to NAS)		
Scheduling		Acronis Backup Software		
		Time Machine support		
		NAS to USB Storage backup		
Remote Access		NAS to NAS backup		
		Memory card to NAS		
Disk Management		Schedule backup		
		Schedule for NTP time synchronization		
Download		Remote Access by Internet Browser		
		Remote Access by Smartphone		
System Setup/Tools		Wake on Lan	-	
		HDD Spin-down timer		
		Single disk, Single disk expansion, RAID 0/1, JBOD	Single disk, RAID 0/1, JBOD	
		Check Disk		
		Disk usage status management		
Others		Disk Format		
		SMART information report		
System Setup/Tools		BT Download without PC (schedule download, tasks download, download configuration, etc.)		
		On line Firmware upgrade	Firmware upgrade	
System Setup/Tools		Time-Zone Settings		
		Wizard and installer for easy setup		
		NAS Discovery tool (Finder to search/connect/map drives)		
		Factory Reset		
		System log		
Others		Schedule on/off	-	
		One touch on power button to turn on/off LED	-	

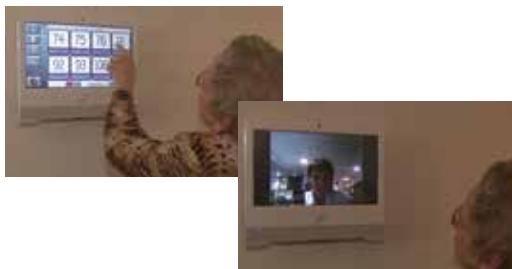


## Find what you're looking for business solution; Shuttle will "Create and Custom-made" for you!!

Shuttle mini-PC, Slim and all-in-one hardware solutions with extensive used in Digital Signage, Self-Service Kiosk, Retail POS in Transportation, Digital Advertising, Hospitality and Retail stores.

### Home Medicare

Application: use as elderly's care facilities in nursing homes.



### Point-Of-Sale

Application: one of the most cost-effective POS systems designed to handle the daily operations of various kinds of hospitality or retail market.



### Digital Signage

#### Retail:

Application: show the advertisement or promote the new product.



#### Hotel:

Application: provide customers guide service, the latest hotel event and room rate information.



#### Bank:

Application: provide the instant financial information such as stock market and global exchange rate.



#### Public Transportation:

Application: provide the commercial advertisements and flight information or self-service check-in.



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