

# SH510R4

## CUBE PC



<b>PROCESSOR</b>	Supports Intel® 10th and 11th Generation Core™ i3/i5/i7 series, Pentium®, and Celeron® 125W LGA 1200 CPU	
<b>MEMORY</b>	DDR4 3200 (11th Gen)/2933/2666 MHz, dual channel up to 64GB (32GB x 2)	
<b>VIDEO GRAPHICS</b>	Integrated Intel UHD graphics (depends on processor type used)	
<b>VIDEO OUTPUT</b>	HDMI + DisplayPort + VGA, Supports dual independent displays	
<b>AUDIO</b>	Realtek ALC662/ALC897/ALC888s, 5.1 channel HD audio	
<b>ETHERNET</b>	Intel i219LM 10/100/1000 MB/s operation	Supports Wake on LAN function
<b>STORAGE INTERFACE</b>	SATA 6 GB/s	
<b>ONBOARD CONNECTORS</b>	(2) 4 pin fan connector (3) SATA gen 3.0 connector (1) ATX main power (2x10) (1) ATX 12V power (2x2)	(1) RS232 header (1) Front audio header (1) Front USB FCC connector (1) 1x4 USB 2.0 wafer
<b>FRONT PANEL</b>	(1) Power Button (1) Power LED (1) HDD LED (2) USB 3.2 Gen 1 port	(1) MIC-in (1) Headphone output
<b>BACK PANEL</b>	(1) HDMI (1) DisplayPort (1) VGA (2) USB 3.2 Gen 1 (4) USB 2.0 (1) Clear CMOS button	(1) MIC-in (1) Line-in jack 1/8" (1) Line out jack 1/8" (1) Kensington Lock (1) LAN (3) Antenna hole
<b>DRIVE BAYS</b>	(1) 5.25" ODD bay (2) 3.5" HDD bay	Supports up to 2.5" HDD/SSD x 3 if PHD3 HDD rack accessory is used
<b>DIMENSIONS</b>	13(L) x 8.5(W) x 7.79(H) inches	
<b>POWER</b>	Input: 100 - 240V AC, 3A-6A AC Supports 80 PLUS Bronze	80 PLUS 300W power supply
<b>ACCESSORIES</b>	Quick Guide CPU Thermal Grease Screw Package	Driver DVD Power Cord SATA cable
<b>EXPANSION SLOT</b>	(1) PCI-E X16 Gen 4.0 slot (w/ 11th gen CPU) (1) PCI-E X1 Gen 3.0 slot	(1) M.2 MAX to 2230 Type E key socket (1) M.2 MAX to 2280 Type M key socket
<b>OS SUPPORT</b>	Windows 10 64 bit, Linux	
<b>CERTIFICATION</b>	Safety certification: CB, BSMI, cTUVus EMI certification: FCC, CE, BSMI, RCM, VCCI	

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<b>CHASSIS</b>	<p>Black aluminum chassis with acrylic front plate Easily customize front panel design by changing the mylar and adding a photo, graphics, or logo Drive bays: 1 x 5.25" ODD, 2 x 3.5" (internal) HDD Supports up to 2 x 2.5" HDD if PHD3 rack accessory x1 or x2 is used Dimensions: 13 (L) x 8.5 (W) x 7.79 (H) inches Weight: 7.5 LBS (net) / 9.9 LBS (gross)</p>										
<b>MAINBOARD AND CHIPSET</b>	<p>Shuttle mainboard, proprietary design for XPC SH510R4 Chipset/Southbridge: Intel® H510 Passive chipset cooling with heatsink Solid capacitors for sensitive areas provide excellent heat resistance for enhanced system durability</p>										
<b>BIOS</b>	<p>AMI BIOS, SPI Interface, 16MB Flash-EPROOM Supports Hardware Monitoring, Watch Dog Supports Firmware TPM (fTPM) v2.0 Supports boot up from external USB flash memory Supports Unified Extensible Firmware Interface (UEFI)</p>										
<b>POWER SUPPLY</b>	<p>Built-in 300W mini switching power supply [1]* AC input voltage: 100 - 240V, 50 - 60 Hz 80 PLUS Bronze compliant: PSU provides at least 82/85/82% of efficiency at 20/50/100% load Active PFC Circuit (Power Factor Correction) ATX main power connectors: 2x10 and 2x2 pin Graphics power connector: 6 pin Other connectors: 4 x SATA, 2 x Molex</p>										
<b>OPERATING SYSTEM</b>	<p>The system comes without an operating system. Compatibility: Windows 10/11 64 bit, Linux 64 bit</p>										
<b>PROCESSOR SUPPORT</b>	<p>LGA 1200 socket supports 10th/11th generation Intel® Core® i3/i5/i7/i9, Pentium Gold, and Celeron processors Max supported processor power consumption (TDP): 125W 14++ nm process technology, up to 10 CPU cores, 20MB of L3 cache The unlock function for Intel® K-Series processors is not supported with this model The processor integrates PCI-Express, the memory controller, and graphics engine on the same die (performance features depend on the processor type) Processors with "F" identifier do not support integrated graphics [3]* Please refer to the support list for more detailed processor information at <a href="http://global.shuttle.com">global.shuttle.com</a></p>										
<b>SYSTEM COOLING</b>	<p>Shuttle I.C.E. (Integrated Cooling Engine) advanced heatpipe cooling technology, linear-controlled 92 mm fan SilentX cooling and noise reduction technology with Active Airflow</p>										
<b>MEMORY SUPPORT</b>	<p>2 x 288 pin slots, supports DDR4 memory at 1.2V Supports Dual Channel mode Supports a max. of 32GB per DIMM, up to 64GB total Maximum DDR4 clock frequency depends on the processor type used: -11th Gen Rocket Lake supports DDR4 3200 MHz -10th Gen Comet Lake Core i7/i9 supports DDR4 2933 -other Comet Lake CPUs support DDR4 2666</p>										
<b>PCI-E SLOTS</b>	<p>1 x PCI-Express x16 v4.0 slot (supports PCI-Express v3.0 with 10th Comet Lake CPUs) 1 x PCI-Express x1 v3.0 slot, open-ended Supports dual slot (double width) graphic cards (occupies the second PCI-Express slot) The maximum size acceptable for display cards is 273 x 98 x 39 mm 6 pin power connector for graphic card [1]*</p>										
<b>M.2 SLOTS</b>	<p>This model features two M.2 expansion slots:</p> <table border="0"> <tr> <td>(1) M.2 2280 M SSD slot</td> <td>(2) M.2 2230 E slot for WLAN cards</td> </tr> <tr> <td>-PCI-Express Gen. 3.0 X4, supports NVMe</td> <td>- PCI-Express Gen. 3.0 X1 and USB 2.0</td> </tr> <tr> <td>-SATA v3.0 (max 6 GB/s)</td> <td>-Supports M.2 cards with a width of 22mm and a length of 30 mm (type 2230)</td> </tr> <tr> <td>-Supports M.2 cards with a width of 22mm and a length of 42, 60, or 80 mm (type 2242/2260/2280)</td> <td>-Supports WLAN expansion cards (optional accessory WLN-M)</td> </tr> <tr> <td>-Supports M.2 SSDs w/ SATA or PCI-Express interface</td> <td></td> </tr> </table>	(1) M.2 2280 M SSD slot	(2) M.2 2230 E slot for WLAN cards	-PCI-Express Gen. 3.0 X4, supports NVMe	- PCI-Express Gen. 3.0 X1 and USB 2.0	-SATA v3.0 (max 6 GB/s)	-Supports M.2 cards with a width of 22mm and a length of 30 mm (type 2230)	-Supports M.2 cards with a width of 22mm and a length of 42, 60, or 80 mm (type 2242/2260/2280)	-Supports WLAN expansion cards (optional accessory WLN-M)	-Supports M.2 SSDs w/ SATA or PCI-Express interface	
(1) M.2 2280 M SSD slot	(2) M.2 2230 E slot for WLAN cards										
-PCI-Express Gen. 3.0 X4, supports NVMe	- PCI-Express Gen. 3.0 X1 and USB 2.0										
-SATA v3.0 (max 6 GB/s)	-Supports M.2 cards with a width of 22mm and a length of 30 mm (type 2230)										
-Supports M.2 cards with a width of 22mm and a length of 42, 60, or 80 mm (type 2242/2260/2280)	-Supports WLAN expansion cards (optional accessory WLN-M)										
-Supports M.2 SSDs w/ SATA or PCI-Express interface											

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<p><b>INTEGRATED GRAPHICS (OPTIONAL)</b></p>	<p>Intel HD graphics function features depend on the processor type used Certain processor models do not support integrated graphics[3]*</p> <p>This model has three video outputs: -HDMI v2.0b (only HDMI v1.4b with 10th Gen Comet Lake processors, 2160p/60 Hz) -DisplayPort v1.4 (2160p/60 Hz supported) -D-sub/VGA</p> <p>Supports displays with 4K Ultra HD resolution at 3840 x 2160 at 60 Hz refresh rate Supports two independent displays with integrated graphics function Supports more displays in combination with a discrete graphics card Hardware video decoding/encoding DisplayPort and HDMI supports multi-channel digital audio over the same cable</p>	
<p><b>HD AUDIO</b></p>	<p>Audio Codec: Realtek ALC662/ALC897/ALC888S, 5.1 channel Three analog audio connectors (3.5mm) on the back panel: Line-in (blue), Line-out (green), MIC in (pink) shared with 5.1 channel line-out (front, rear, center/bass) Front panel: MIC in (input) and Headphone output (line-out) DisplayPort and HDMI supports multi-channel digital audio over the same cable</p>	
<p><b>GIGABIT LAN CONTROLLER</b></p>	<p>Intel i219LM PHY connected to the MAC of the processor Supports 10/100/1000 MB/s operation Supports Wake-on-LAN Supports network boot by Preboot eXecution environment (PXE)</p>	
<p><b>DRIVE CONNECTORS</b></p>	<p>3x Serial ATA 6G ( rev. 3.0, max 6GB/s), Storage bays: 1 x 5.25" ODD, 2 x 3.5" HDD Using the optional accessory PHD3, two 2.5" drives can be installed in one 3.5" drive bay)</p>	
<p><b>FRONT PANEL CONNECTORS</b></p>	<p>Microphone input (3.5 mm) Headphone output (3.5 mm) 2x USB 3.2 Gen 1</p>	<p>Power button Power indicator (Blue LED) Hard disk drive indicator (Yellow LED)</p>
<p><b>BACK PANEL CONNECTORS</b></p>	<p>HDMI 2.0b (1.4b with 10th Gen CPU) x 1 DisplayPort 1.4 x 1 [2]* VGA (analog video) x 1 USB 2.0 x 4 USB 3.2 Gen 1 x 2 Audio line-out (3.5 mm)</p>	<p>Audio line-in (3.5 mm) MIC in (3.5 mm) Clear CMOS button Gigabit LAN (RJ45) x 1 WLAN antenna holes x 3 (optional) Serial RS232 port (optional, H-RS232 accessory)</p>
<p><b>OTHER CONNECTORS (ONBOARD)</b></p>	<p>Front panel: USB, audio, buttons, LEDs RS232 x 1 (serial interface, 2x5 header)</p>	<p>Fan connectors x 2 (4 pin) USB 2.0 interface x 1 (4 pin)</p>
<p><b>INCLUDED ACCESSORIES</b></p>	<p>XPC installation guide Driver DVD Serial ATA cables x 2</p>	<p>AC Power Cord (with protective earth contacts) Thermal paste, screw pack Protector cap for CPU socket (don't use if heatpipe or fan is mounted)</p>
<p><b>OPTIONAL ACCESSORIES</b></p>	<p>Back panel adapter for serial RS232 port (H-RS232) Wireless LAN 802.11ac and Bluetooth kit with two antennas (WLN-M) Adapter for 2.5" drives (PHD3 rack) Adapter cable for external power button (CXP01)</p>	
<p><b>ENVIRONMENTAL CRITERIA</b></p>	<p>Operating temperature: 0 - 40°C</p>	<p>Humidity: 10 - 90%</p>
<p><b>CERTIFICATIONS</b></p>	<p>EMI: FCC, CE, BSMI, C-Tick Safety: ETL, CB, BSMI</p> <p>Other: RoHS, Energy Star 5.0, ErP</p> <p>This model is classed as a technical information equipment (ITE) in class B and is intended for use in living rooms and offices. The CE mark approves conformity by the EU directives: (1) 2014/30/EU relating to electromagnetic compatibility (EMC) (2) 2014/35/EU relating to Electrical Equipment designed for use within certain voltage limits (LVD) (3) 2009/125/EC relating to eco-design requirements for energy related products (ErP)</p>	

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## [1] ONLINE POWER CALCULATOR

The PCI-Express x16 slot provides a maximum of 75 watts to the graphics card, plus 75 watts and 150 watts from the 6-pin and 8-pin connector of the power supply - the power consumption of the graphics card must not exceed 300 watts. The processor may have a maximum TDP of 125 watts. If powerful PC components are used, then check with the "Power Supply Calculator" whether the built-in 500 watt power supply supports this configuration, see: <http://global.shuttle.com/>

## [2] HOW TO CONVERT DISPLAYPORT TO HDMI/DVI

The DisplayPort output can be converted into a HDMI or DVI output using an additional passive adapter cable. The integrated graphics automatically detects the connected display and outputs the appropriate electric signal - either DisplayPort (without an adapter) or HDMI/DVI (with an adapter). However, a monitor with a DisplayPort connector cannot be connected to the HDMI port with a simple passive adapter.

## [3] INTEGRATED GRAPHICS IS OPTIONAL FOR SOME PROCESSORS

Processors with model numbers ending with "F" (like Intel Core i5-11600F) do not support integrated graphics. In cases of these processors, a discrete PCI-E graphics card is mandatory.

**BIOS DOWNLOADS:** <https://global.shuttle.com/products/productsDownload?productId=2617>

**SUPPORT LIST:** <https://global.shuttle.com/products/productsSupportList?productId=2617>

**FAQ LIST:** <http://global.shuttle.com/support/faq>

**PRODUCT WARRANTY:** <https://us.shuttle.com/barebone-support/policy-xpc-barebone/>

# SH510R4

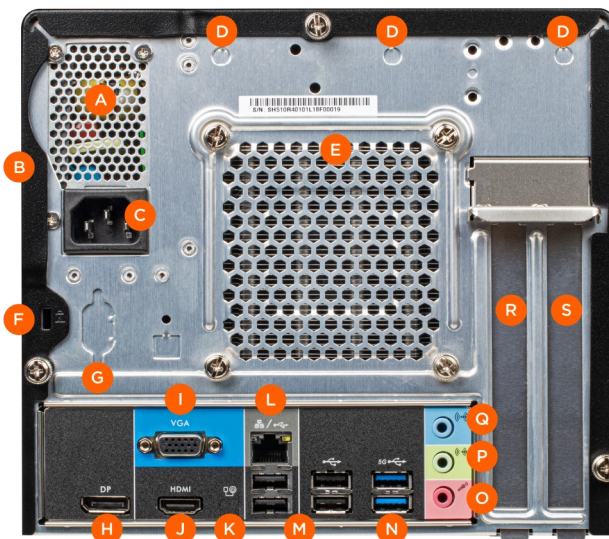
CUBE PC

## Front View



- 1 5.25" optical drive bay
- 2 Hard disk LED indicator
- 3 Power switch with LED
- 4 Removable acrylic plate
- 5 USB 3.2 Gen 1 ports x 2 (Type-A)
- 6 Microphone input
- 7 Headphone input

## Back View

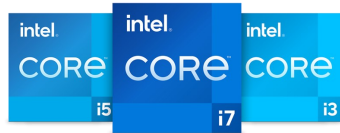


- A Power supply fan
- B Power supply
- C AC power connector
- D Optional WLAN antennas
- E Heatpipe cooling system
- F Kensington Lock
- G Optional COM port
- H DisplayPort 1.4 port
- I VGA port
- J HDMI 2.0b port (1.4b w/ 10th Gen CPU)
- K Clear CMOS button
- L RJ45 Gigabit LAN
- M USB 2.0 x 4
- N USB 3.2 Gen 1 x 2
- O Microphone input
- P Audio line-out
- Q Audio line-in
- R PCI-Express X16 slot
- S PCI-Express X1 slot

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# SH510R4

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## SUPPORTS INTEL® 10TH AND 11TH GENERATION PROCESSORS

The SH510R4 supports both Intel® 10th/11th Generation Core™ i3/i5/i7, Pentium®, and Celeron® processors. With up to 10 cores, DDR4 3200/2933/2666 MHz memory is supported up to 64GB and integrated UHD graphics and PCI-E controllers support onboard graphics output for outstanding graphics performance.



## SUPERB PCI-E SCALABILITY

One PCI-E X16 4.0 and PCI-E X1 3.0 slots are provided for use with multi-display graphic cards, monitor cards, RAID cards, professional sound cards, network video recorder and more.



## FRONT PANEL CUSTOMIZATION

The R4 chassis is easily customized by changing the acrylic front plate. Insert any design such as a photo, graphic, or a company logo to the front panel.



## 24/7 NONSTOP OPERATION

Officially approved for 24/7 operation, the SH510R4 provides stable operation to run reliably for long term demands of computing work.



## SMART FAN DESIGN

A heat pipe cooling system with smart fan design can be set in the BIOS for faster fan speed automatically when CPU temperature increases for high stability and low noise during long term operation.

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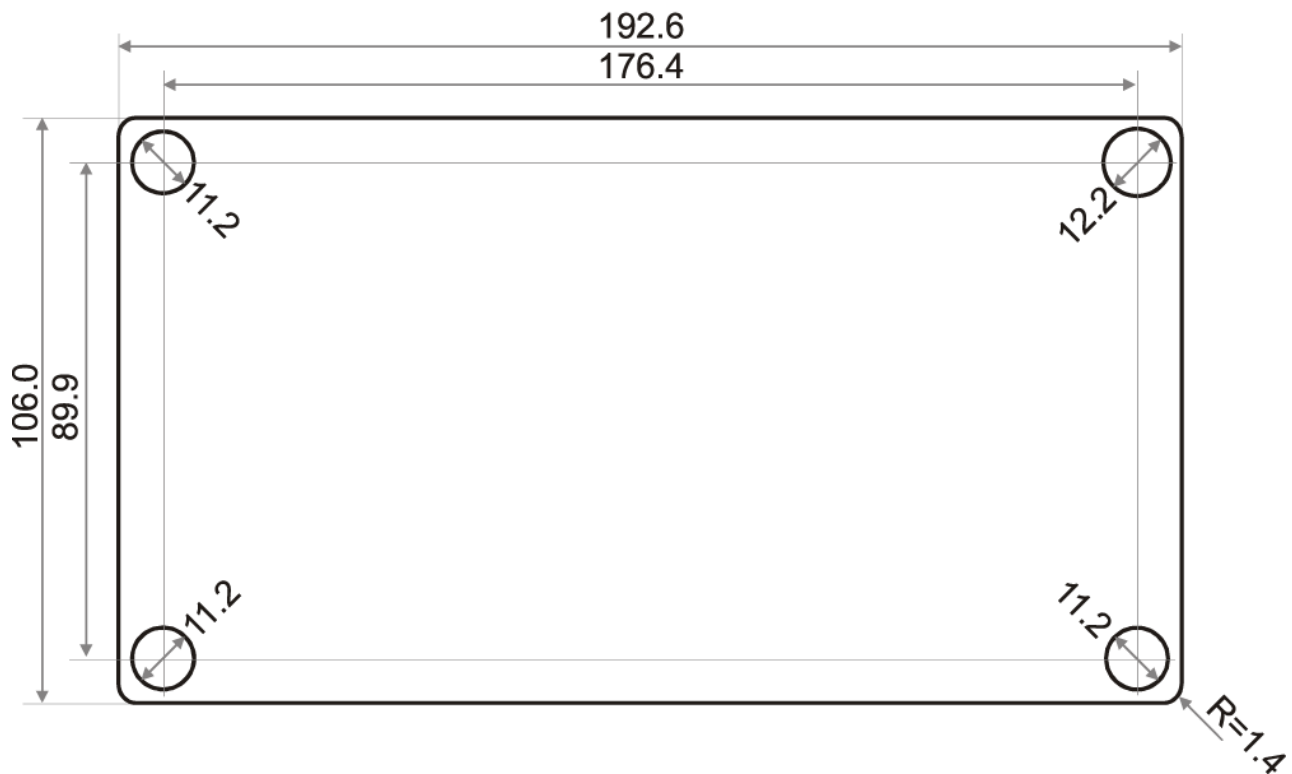
# SH510R4

CUBE PC



## MYLAR DIMENSIONS

The R4 front panel comes with a removable acrylic plate which allows for easy customization of the front design. Simply change the mylar and add your individual design such as a photo, graphics, or a company logo to the front panel in just a few steps.



\*Measurements are in mm

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<b>ACCESSORY</b>	<b>H-RS232</b>
<b>DESCRIPTION</b>	With the help of this adapter, a serial RS232 port can be equipped in several XPCs. A sub-D connector is added to the back panel and is connected to the serial interface on the motherboard.
<b>PORTS</b>	External: Sub-D, 9 pins, male Internal: 10 pin (2x5), female



<b>ACCESSORY</b>	<b>PHD3</b>
<b>DESCRIPTION</b>	The PHD3 allows for installation of up to two 2.5" HDD/SSD into a larger 3.5" drive bay. With a second PHD3, up to four 2.5" drives can be installed (4th drive can only be installed in XPCs of the J & R series)
<b>REMARKS</b>	Please check number of available SATA data and power connectors. Current XPC models usually offer four SATA data connector and three SATA power connectors.



<b>ACCESSORY</b>	<b>WLN-M</b>
<b>DESCRIPTION</b>	The WLN-M wireless LAN kit can be used to equip XPC cube and slim series models with the wireless LAN standard 802.11 n/ac at 2.4/5 GHz. The combo device supports Bluetooth 4.0.
<b>ITEMS INCLUDED</b>	M.2 2230 (NGFF) WLAN card, XPC slim antenna cables x 2 (8.3 in and 11.4 in), XPC cube antenna cables x 2 (20.8 in), Dipole antennas x 2, Quick guide, Driver DVD
<b>OS SUPPORT</b>	Windows 7, Windows 8.1, Windows 10, Linux (32/64 bit)

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# SH310R4 vs SH510R4

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MODEL	SH310R4/SH310R4 V2	SH510R4
CHIPSET	Intel H310/H310C (SH310R4 V2)*	Intel H510
PROCESSOR SUPPORT	LGA 1151 v2, max TDP 95W 14nm Coffee Lake (8th/9th Gen Core CPU) Intel® Core™ i3/i5/i7/i9, Pentium, Celeron	LGA 1200, max TDP 125W 14nm Comet/Rocket Lake-S (10th/11th Gen Core CPU) Intel® Core™ i3/i5/i7/i9, Pentium Gold, Celeron
MEMORY	2 x 16GB DDR4 2400/2666 MHz max	2 x 32GB DDR4 3200 MHz max
PCI-E SLOTS	(1) PCI-E X16 v3.0 (1) PCI-E X1 v2.0	(1) PCI-E X16 v4.0 (1) PCI-E X1 v3.0
VIDEO OUTPUT	HDMI 2.0a + DisplayPort 1.2, Supports two independent displays, Supports 4K Ultra HD, DirectX 12	HDMI 2.0b + DisplayPort 1.4, Supports two independent displays, Supports 4K Ultra HD, DirectX 12
AUDIO	Realtek ALC662, 5.1 channel HD audio	Realtek ALC662/897/888S, 5.1 channel HD audio
ETHERNET	Intel i219LM 10/100/1000 MB/s operation Supports Wake on LAN function	Intel i219LM 10/100/1000 MB/s operation Supports Wake on LAN function
SATA ONBOARD	SATA 6G x 3	SATA 6G x 3
FRONT PANEL	Power button with LED, HDD LED, MIC-in, Headphone out, USB 3.0 x 2	Power button with LED, HDD LED, MIC-in, Headphone out, USB 3.2 Gen 1 x 2
BACK PANEL	HDMI 2.0a, DisplayPort, VGA USB 2.0 x 4, USB 3.0 x 2 Gigabit LAN (Intel i219LM) Audio x 3, Clear CMOS button	HDMI 2.0b, DisplayPort 1.4, VGA USB 2.0 x 4, USB 3.2 Gen 1 x 2 Gigabit LAN (Intel i219LM) Audio x 3, Clear CMOS button
DRIVE BAYS	(1) 5.25" ODD bay (2) 3.5" HDD bay	(1) 5.25" ODD bay (2) 3.5" HDD bay
POWER	300W 80 PLUS Bronze	300W 80 PLUS Bronze
OPTIONAL ACCESSORIES	500W power supply (PC63J) RS232 port (H-RS232) WLAN kit 802.11n/ac + Bluetooth (WLN-M) 2.5" drive rack (PHD3)	RS232 port (H-RS232) WLAN kit 802.11n/ac + Bluetooth (WLN-M) 2.5" drive rack (PHD3)
EXPANSION SLOT	(1) M.2 2280 Type M key socket (1) M.2 2230 Type E key socket	(1) M.2 2280 Type M key socket (1) M.2 2230 Type E key socket
OS SUPPORT	Windows 10, Linux 64 bit	Windows 10/11, Linux 64 bit

\*H310 chipsets supports four SATA devices in total. Three are available for regular SATA drives and one is being used for the M.2 2280 slot

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# SH510R4

## CUBE PC

### 10th Generation Intel Core Desktop Processors LGA 1200 14 nm "Comet Lake S" (Aug 2021)

Name	Model	Cores/Threads	CPU Clock	Turbo Clock	Cache	TDP	Memory	Graphics
Core i9	10900K	10/20	3.7 GHz	5.1 GHz	20 MB	125W	DDR4-2933	UHD 630 (1.2 GHz)
	10900KF	10/20	3.7 GHz	5.1 GHz	20 MB	125W	DDR4-2933	None
	10900	10/20	2.8 GHz	5.0 GHz	20 MB	65W	DDR4-2933	UHD 630 (1.2 GHz)
	10900F	10/20	2.8 GHz	5.0 GHz	20 MB	65W	DDR4-2933	None
	10900T	10/20	1.9 GHz	4.5 GHz	20 MB	35W	DDR4-2933	UHD 630 (1.2 GHz)
	10850K	10/20	3.6 GHz	5.0 GHz	20 MB	125W	DDR4-2933	UHD 630 (1.2 GHz)
Core i7	10700K	8/16	3.8 GHz	5.0 GHz	16 MB	125W	DDR4-2933	UHD 630 (1.2 GHz)
	10700KF	8/16	3.8 GHz	5.0 GHz	16 MB	125W	DDR4-2933	None
	10700	8/16	2.9 GHz	4.7 GHz	16 MB	65W	DDR4-2933	UHD 630 (1.2 GHz)
	10700F	8/16	2.9 GHz	4.7 GHz	16 MB	65W	DDR4-2933	None
	10700T	8/16	2.0 GHz	4.4 GHz	16 MB	35W	DDR4-2933	UHD 630 (1.2 GHz)
Core i5	10600K	6/12	4.1 GHz	4.8 GHz	12 MB	125W	DDR4-2666	UHD 630 (1.2 GHz)
	10600KF	6/12	4.1 GHz	4.8 GHz	12 MB	125W	DDR4-2666	None
	10600	6/12	3.3 GHz	4.8 GHz	12 MB	65W	DDR4-2666	UHD 630 (1.2 GHz)
	10600T	6/12	2.4 GHz	4.0 GHz	12 MB	35W	DDR4-2666	UHD 630 (1.2 GHz)
	10500	6/12	3.1 GHz	4.5 GHz	12 MB	65W	DDR4-2666	UHD 630 (1.15 GHz)
	10500T	6/12	2.3 GHz	3.8 GHz	12 MB	35W	DDR4-2666	UHD 630 (1.1 GHz)
	10400	6/12	2.9 GHz	4.3 GHz	12 MB	65W	DDR4-2666	UHD 630 (1.1 GHz)
	10400F	6/12	2.9 GHz	4.3 GHz	12 MB	65W	DDR4-2666	None
	10400T	6/12	2.0 GHz	3.6 GHz	12 MB	35W	DDR4-2666	UHD 630 (1.1 GHz)
Core i3	10325	4/8	3.9 GHz	4.7 GHz	8 MB	65W	DDR4-2666	UHD 630 (1.15 GHz)
	10320	4/8	3.8 GHz	4.6 GHz	8 MB	65W	DDR4-2666	UHD 630 (1.15 GHz)
	10305	4/8	3.8 GHz	4.5 GHz	8 MB	65W	DDR4-2666	UHD 630 (1.15 GHz)
	10305T	4/8	3.8 GHz	4.5 GHz	8 MB	65W	DDR4-2666	UHD 630 (1.1 GHz)
	10300	4/8	3.7 GHz	4.4 GHz	8 MB	65W	DDR4-2666	UHD 630 (1.15 GHz)
	10300T	4/8	3.0 GHz	3.9 GHz	8 MB	35W	DDR4-2666	UHD 630 (1.1 GHz)
	10105F	4/8	3.7 GHz	4.4 GHz	6 MB	65W	DDR4-2666	None
	10105	4/8	3.7 GHz	4.4 GHz	6 MB	65W	DDR4-2666	UHD 630 (1.1 GHz)
	10105T	4/8	3.0 GHz	3.9 GHz	6 MB	35W	DDR4-2666	UHD 630 (1.1 GHz)
	10100	4/8	3.6 GHz	4.3 GHz	6 MB	65W	DDR4-2666	UHD 630 (1.1 GHz)
	10100F	4/8	3.6 GHz	4.3 GHz	6 MB	65W	DDR4-2666	None
	10100T	4/8	3.0 GHz	3.8 GHz	6 MB	35W	DDR4-2666	UHD 630 (1.1 GHz)

For more information on all products, please contact us at [sales@us.shuttle.com](mailto:sales@us.shuttle.com) or 626.820.9000

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# SH510R4

## CUBE PC

### 10th Generation Intel Core Desktop Processors LGA 1200 14 nm "Comet Lake S" (Aug 2021) cont.

Name	Model	Cores/Threads	CPU Clock	Turbo Clock	Smart Cache	TDP	Memory	Graphics
Pentium® Gold	G6605	2/4	4.3 GHz	-	4 MB	58W	DDR4-2666	UHD 630 (1.1 GHz)
	G6600	2/4	4.2 GHz	-	4 MB	58W	DDR4-2666	UHD 630 (1.1 GHz)
	G6505	2/4	4.2 GHz	-	4 MB	58W	DDR4-2666	UHD 630 (1.1 GHz)
	G6500	2/4	4.1 GHz	-	4 MB	58W	DDR4-2666	UHD 630 (1.1 GHz)
	G6500T	2/4	3.5 GHz	-	4 MB	35W	DDR4-2666	UHD 630 (1.05 GHz)
	G6405	2/4	4.1 GHz	-	4 MB	58W	DDR4-2666	UHD 630 (1.05 GHz)
	G6405T	2/4	3.5 GHz	-	4 MB	35W	DDR4-2666	UHD 630 (1.05 GHz)
	G6400	2/4	4.0 GHz	-	4 MB	58W	DDR4-2666	UHD 630 (1.05 GHz)
	G6400T	2/4	3.4 GHz	-	4 MB	35W	DDR4-2666	UHD 630 (1.05 GHz)
Celeron®	G5925	2/2	3.6 GHz	-	4 MB	58W	DDR4-2666	UHD 610 (1.05 GHz)
	G5920	2/2	3.5 GHz	-	2 MB	58W	DDR4-2666	UHD 610 (1.05 GHz)
	G5905	2/2	3.5 GHz	-	4 MB	58W	DDR4-2666	UHD 610 (1.05 GHz)
	G5905T	2/2	3.3 GHz	-	4 MB	35W	DDR4-2666	UHD 610 (1.05 GHz)
	G5900	2/2	3.4 GHz	-	2 MB	58W	DDR4-2666	UHD 610 (1.05 GHz)
	G5900T	2/2	3.2 GHz	-	2 MB	35W	DDR4-2666	UHD 610 (1.05 GHz)

**K** = unlocked, **T** = power optimized, **F** = without integrated graphics (requires discrete graphics card), **TDP** = Thermal Design Power (max power consumption).

Note: **The Shuttle XPC cube barebone SH510R4 does not support the unlock function of Intel K-series processors.**

See more support information at [global.shuttle.com](https://global.shuttle.com)

# SH510R4

## CUBE PC

### 11th Generation Intel Core Desktop Processors LGA 1200 14 nm "Rocket Lake S" (Aug 2021)

Name	Model	Cores/Threads	CPU Clock	Turbo Clock	Cache	TDP	Memory	Graphics
Core i9	11900K	8/16	3.5 GHz	5.3 GHz	16 MB	125W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
	11900KF	8/16	3.5 GHz	5.3 GHz	16 MB	125W	DDR4-3200	None
	11900	8/16	2.5 GHz	5.2 GHz	16 MB	65W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
	11900F	8/16	2.5 GHz	5.2 GHz	16 MB	65W	DDR4-3200	None
	11900T	8/16	1.5 GHz	4.9 GHz	16 MB	35W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
Core i7	11700K	8/16	3.6 GHz	5.0 GHz	16 MB	125W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
	11700KF	8/16	3.6 GHz	5.0 GHz	16 MB	125W	DDR4-3200	None
	11700	8/16	2.5 GHz	4.9 GHz	16 MB	65W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
	11700F	8/16	2.5 GHz	4.8 GHz	16 MB	65W	DDR4-3200	None
	11700T	8/16	1.4 GHz	4.6 GHz	16 MB	35W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
Core i5	11600K	6/12	3.9 GHz	4.9 GHz	12 MB	125W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
	11600KF	6/12	3.9 GHz	4.9 GHz	12 MB	125W	DDR4-3200	None
	11600	6/12	2.8 GHz	4.8 GHz	12 MB	65W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
	11600T	6/12	1.7 GHz	4.1 GHz	12 MB	35W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
	11500	6/12	2.7 GHz	4.6 GHz	12 MB	65W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
	11500T	6/12	1.5 GHz	3.9 GHz	12 MB	35W	DDR4-3200	UHD 750 (1.2 GHz, 32 EUs)
	11400	6/12	2.6 GHz	4.4 GHz	12 MB	65W	DDR4-3200	UHD 750 (1.3 GHz, 32 EUs)
	11400F	6/12	2.6 GHz	4.4 GHz	12 MB	65W	DDR4-3200	None
	11400T	6/12	1.3 GHz	3.7 GHz	12 MB	35W	DDR4-3200	UHD 750 (1.2 GHz, 32 EUs)

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Note: **The Shuttle XPC cube barebone SH510R4 does not support the unlock function of Intel K-series processors.**

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