



# ST102-CS

H310  
Q370

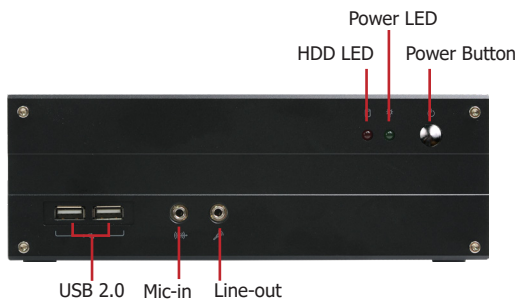


### Features

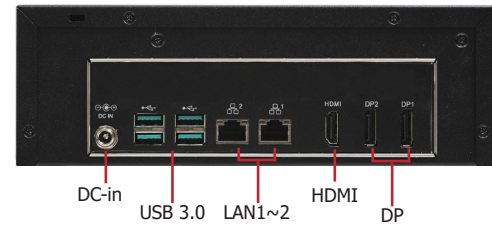
- 2DDR4 2666MHz SODIMM up to 32G
- 1x 2.5" SATA drive bay  
1x optional slim ODD bay
- 2 LAN, 6 USB



### Panel

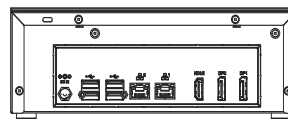


Front View

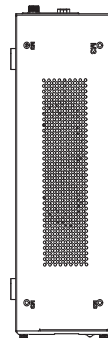


Rear View

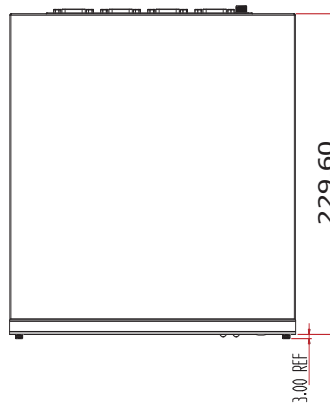
### Dimensions



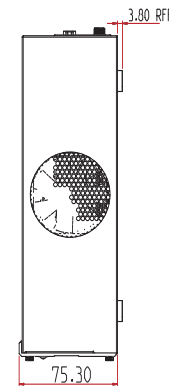
Rear View



Left View



Front View



Right View

## ► Specifications

<b>SYSTEM</b>	<b>Processor</b>	9th Generation Intel® Core™ Processors, LGA 1151 Socket, TDP up to 35W Intel® Core i7-9700TE Processor (Core 8; Max speed 3.8 GHz; TDP 35W) Intel® Core i5-9500TE Processor (Core 6; Max speed 3.6 GHz; TDP 35W) Intel® Core i3-9100TE Processor (Core 4; Max speed 3.2 GHz; TDP 35W)  8th Generation Intel® Core™ Processors, LGA 1151 Socket, TDP up to 35W Intel® Core™ i7-8700T Processor (Core 6; Max speed 4.0 GHz; TDP 35W) Intel® Core™ i5-8500T Processor (Core 6; Max speed 3.5 GHz; TDP 35W) Intel® Core™ i3-8100T Processor (Core 4; Max speed 3.1 GHz; TDP 35W) Intel® Celeron G4900T Processor (Core 2; Max speed 2.9 GHz; TDP 35W)
	<b>Chipset</b>	Intel® H310/Q370 Chipset
	<b>Memory</b>	Two 260-pin SODIMM up to 32GB Dual Channel DDR4 2666MHz
	<b>BIOS</b>	AMI SPI 128Mbit
<b>GRAPHICS</b>	<b>Controller</b>	Intel® UHD Graphics 630 (only Pentium G5400, Celeron G4900 support 610)
	<b>Feature</b>	OpenGL 4.4, DirectX 12, OpenCL 2.1 HW Decode: AVC/H.264, MPEG2, VC1/WMV9, JPEG/MJPEG, HEVC/H265, VP8, VP9 HW Encode: AVC/H.264, MPEG2, JPEG, HEVC/H265, VP8, VP9
	<b>Display</b>	1 x LVDS/eDP (eDP available upon request) LVDS: resolution up to 1920x1200 @ 60Hz 1 x HDMI eDP: resolution up to 4096x2304 @ 60Hz 2 x DP++ HDMI: resolution up to 4096x2160 @ 60Hz DP1.2: resolution up to 4096x2304 @ 60Hz
	<b>Triple Displays</b>	2 x DP++ & 1 x HDMI
<b>STORAGE EXPANSION</b>		1 x 2.5" SATA bay, anti-vibration  1 x Full-Size mini PCIe mSATA 1 x m.2 2280 mKey (PCIe x 4/SATA) Support NV memory and Intel Optane memory 1 x m.2 2230 EKey (USB/PCIe)
<b>AUDIO</b>	<b>Audio Codec</b>	Realtek ALC888S-VD2-GR
<b>ETHERNET</b>	<b>Controller</b>	1 x Intel® I210AT PCIe (10/100/1000Mbps) 1 x Intel® I219LM PCIe with iAMT11.0 (10/100/1000Mbps)
<b>LED</b>	<b>Indicators</b>	1 x Power LED 1 x HDD LED
<b>FRONT I/O</b>	<b>USB</b>	2 x USB 2.0 (X100-USB2)
	<b>Audio</b>	1 x Line-out 1 x Mic-in (via cable to external interface from on board pin-header)
	<b>Buttons</b>	1 x Power Button
	<b>ODD</b>	Slim ODD (optional).
<b>REAR I/O</b>	<b>Ethernet</b>	2 x GbE (RJ-45)
	<b>USB</b>	4 x USB 3.1
	<b>Display</b>	2 x DP++ 1 x HDMI
	<b>Antenna</b>	2x antenna opening
<b>COOLING</b>	<b>Fan</b>	1 x System Fan 1 x CPU Fan
<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b>	System Reset, Programmable via Software from 1 to 255 Seconds
<b>POWER</b>	<b>Type</b>	12V
	<b>Connector</b>	DC Jack
<b>OS SUPPORT</b>		Windows 10 IoT Enterprise
<b>MECHANISM</b>	<b>Construction</b>	Metal chassis + Aluminum front bezel Kensington lock
	<b>Mounting</b>	Wall mount
	<b>Dimensions ( W x H x D )</b>	219mm x 75.15mm x 229.7mm (without of stand holder)
	<b>Weight</b>	2.55 kg
<b>ENVIRONMENT</b>	<b>Operating Temperature</b>	-5 to 55°C
	<b>Storage Temperature</b>	-20 to 70°C
	<b>Relative Humidity</b>	Operating: 10 to 85% (non-condensing) Storage: 10% to 90% (non-condensing)
<b>STANDARDS AND CERTIFICATIONS</b>	<b>Shock</b>	Operating: 3G Non-operating: 5G
	<b>Vibration</b>	Operating: Random 5~500Hz 1G Non-operating: Sweep Sine 10~500Hz 1.5G
	<b>Package Drop</b>	ISTA Project 1A
	<b>Certification</b>	CE/FCC class B

**► Ordering Information**

Model Name	Part Number	Description
<b>ST102-CS</b>	750-ST1021-000G	ST102-CS: CS101-Q370 W/TPM, F/G System RoHS
	750-ST1021-100G	ST102-CS: CS101-H310 W/TPM, F/G System RoHS
	750-ST1021-200G	ST102-CS: CS101-Q370 W/TPM, slim ODD, F/G System RoHS
	750-ST1021-300G	ST102-CS: CS101-H310 W/TPM, slim ODD, F/G System RoHS

**► Optional Items**

Optional Items	Part Number	Description
<b>CPU</b>	143-101805-500G	i7-9700TE, 1.8GHz to 3.8GHz, 8C8T, 12M cache, TDP 35W
	143-10220G-500G	i5-9500TE, 2.2GHz to 3.6GHz, 6C6T, 9M cache, TDP 35W
	143-10220E-500G	i3-9100TE, 2.2GHz to 3.2GHz, 4C4T, 6M cache, TDP 35W
	143-10240A-500G	i7-8700T, 2.4GHz to 4GHz, 6C12T, 12M cache, TDP 35W
	143-102104-501G	i5-8500T, 2.1GHz to 3.5GHz, 6C6T, 9M cache, TDP 35W
	143-103105-500G	i3-8100T, 3.1GHz, 4C4T, 6M cache, TDP 35W
<b>DIMM</b>	138-540002-106G	4GB DDR4 2666Mhz SO-DIMM 1Rx8 512Mx8 CL19 1.2V
	138-580004-102G	8GB DDR4 2666Mhz SO-DIMM 1Rx8 1Gx8 CL19 1.2V
	138-5G0163-102G	16GB DDR4 2666Mhz SO-DIMM 2Rx8 1Gx8 CL19 1.2V
<b>SSD M.2 2280</b>	TBD	32GB, M.2 2280 SSD, SATA3 B+M Key, MLC
	TBD	64GB, M.2 2280 SSD, SATA3 B+M Key, MLC
	638-712811-100G	128GB, M.2 2280 SSD, SATA3 B+M Key, MLC
	638-725615-100G	256GB, M.2 2280 SSD, SATA3 B+M Key, MLC
	638-712818-100G	128GB, M.2 2280 SSD, SATA3 B+M Key, 3D TLC, PE: 3K
	638-725614-100G	256GB, M.2 2280 SSD, SATA3 B+M Key, 3D TLC, PE: 3K
	TBD	512GB, M.2 2280 SSD, SATA3 B+M Key, 3D TLC, PE: 3K
	638-701T01-100G	1TB, M.2 2280 SSD, SATA3 B+M Key, 3D TLC, PE: 3K
	638-712816-110G	128GB, M.2 2280, PCIe Gen3x4, M-Key, 3D TLC, PE: 3K
	638-725608-100G	256GB, M.2 2280, PCIe Gen3x4, M-Key, 3D TLC, PE: 3K
	TBD	512GB, M.2 2280, PCIe Gen3x4, M-Key, 3D TLC, PE: 3K
TBD	1TB, M.2 2280, PCIe Gen3x4, M-Key, 3D TLC, PE: 3K	
<b>SSD MSATA</b>	638-703203-110G	32GB, mSATA SSD, SATA3, MLC
	638-706403-130G	64GB, mSATA SSD, SATA3, MLC
	638-712800-160G	128GB, mSATA SSD, SATA3, MLC
	638-725600-100G	256GB, mSATA SSD, SATA3, MLC
	TBD	64GB, mSATA SSD, SATA3, 3D TLC, PE: 3K
	TBD	128GB, mSATA SSD, SATA3, 3D TLC, PE: 3K
	TBD	256GB, mSATA SSD, SATA3, 3D TLC, PE: 3K
	TBD	512GB, mSATA SSD, SATA3, 3D TLC, PE: 3K
	TBD	1TB, mSATA SSD, SATA3, 3D TLC, PE: 3K

## Optional Items

Optional Items	Part Number	Description
<b>SSD 2.5"</b>	635-600322-1A0G	32GB, 2.5" SSD, SATA3, MLC
	635-600644-100G	64GB, 2.5" SSD, SATA3, MLC
	635-601282-1E0G	128GB, 2.5" SSD, SATA3, MLC
	635-602562-121G	256GB, 2.5" SSD, SATA3, MLC
	635-605122-130G	512GB, 2.5" SSD, SATA3, MLC
	635-601286-110G	128GB, 2.5" SSD, SATA3, 3D TLC, PE: 3K
	635-602566-150G	256GB, 2.5" SSD, SATA3, 3D TLC, PE: 3K
	635-605126-140G	512GB, 2.5" SSD, SATA3, 3D TLC, PE: 3K
	635-610006-110G	1TB, 2.5" SSD, SATA3, 3D TLC, PE: 3K
<b>HDD 2.5"</b>	635-550092-090G	2.5" SATAIII 500GB 5400RPM 128MB BLUE
	635-500100-220G	2.5" SATAIII 1TB 5400RPM 128MB BLUE
	TBD	2.5" SATAIII 2TB 5400RPM 128MB BLUE
	TBD	2.5" SATAIII 500GB 7200RPM 64MB BLACK
	635-500111-000G	2.5" SATAIII 1TB 7200RPM 64MB BLACK
<b>OS</b>	921-151310-000G	Win10 IoT Ent 2019 LTSC MultiLang High End EPKEA
	921-151320-000G	Win10 IoT Ent 2019 LTSC MultiLang High End PKEA
	921-151340-000G	Win10 IoT Ent 2019 LTSC MultiLang High Value EPKEA
	921-151330-000G	Win10 IoT Ent 2019 LTSC MultiLang High Value PKEA
	642-000W10-000G	Win Pro 10 64Bit English 1pk DSP OEI DVD version 1809
<b>Adapter AC/DC</b>	671-110006-100G	Power Adapter AC/DC 100W 12V, inlet C14, lockable DC Jack 5.5/2.5mm, cable length 1500mm, with DFI-JP PSE
<b>Power Cord</b>	332-700010-201G	Power Cord US 3pin 1830mm Length
	A81-004003-000G	Power Cord EU 2pin 1830mm Length
	A81-000001-000G	Power Cord China 3pin 1830mm Length
	A81-004056-000G	Power Cord Japan 3pin 2000mm Length
<b>Foot Stand</b>	A31-027042-210G	ST102 support frame, AL BLACK
<b>M.2 WIFI</b>	761-OPS150-001G	1x intel M.2 2230 AC 3168.NGWG 802.11abgn/ac 1T1R + Bluetooth 4.2 2x MHF4 to SMA cable 200mm 2x dipole antenna 1x M2x4mm screw
	TBD	1x Intel® Wireless-AC 9260, 2230, 2x2 AC+BT, Gigabit 2x MHF4 to SMA cable 200mm 2x dipole antenna 1x M2x4mm screw

## Packing List

- 1 ST102-CS system unit
- 1 CPU cooler
- 1 Quick Installation Guide