



**8th Gen Intel® Core™ Processor
Thin Mini-ITX**

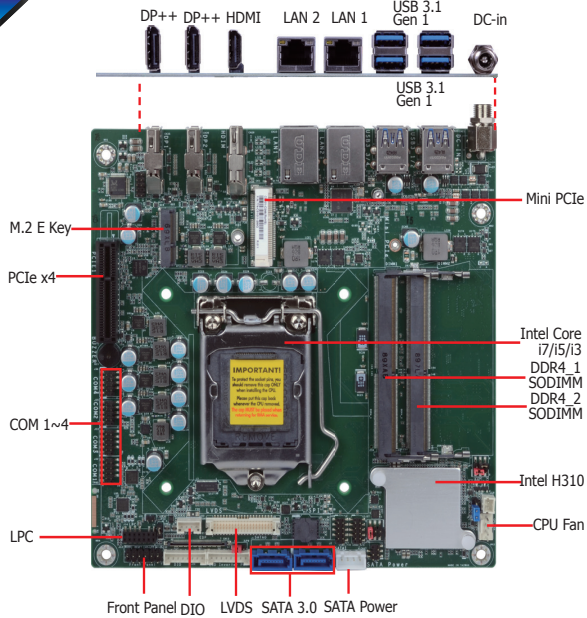


CS101-H310

Desktop

Features

- 2 DDR4 2666MHz SODIMM up to 32GB
- Dual/Three independent displays:
LVDS + HDMI + DP++
- DP++ resolution supports up to 4096x2304 @ 60Hz
- Multiple Expansions:
1 PCIe x4 Gen 3, 1 mSATA, 1 M.2 2230 E Key
- Storage: 2 SATA 3.0
- Rich I/O:
2 Intel GbE, 4 COM, 4 USB 3.1 Gen 1, 4 USB 2.0

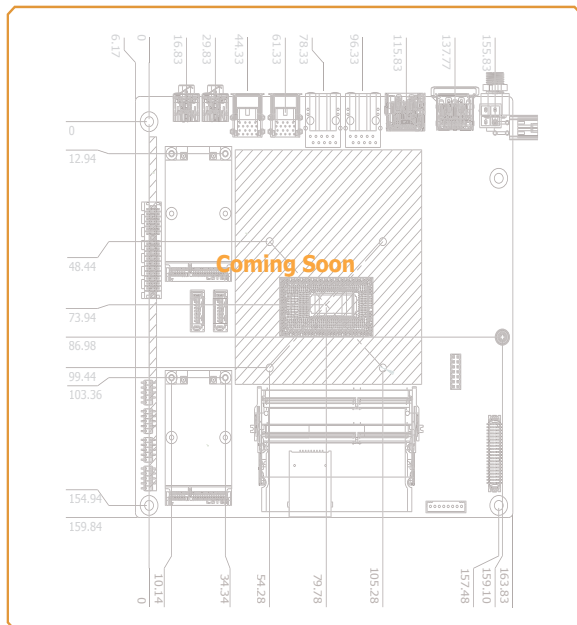


Ordering Information

Model Name	P/N	Memory	LVDS/eDP	VGA/DP++	GbE	RS-232	RS-232/422/485	USB 3.1 Gen 1	USB 2.0	SATA 3.0	TPM	Power	Temp.
CS101-H310	TBD	2 SODIMM	LVDS	DP++	2	2	2	4	4	2	2.0	12V DC	0 to 60°C

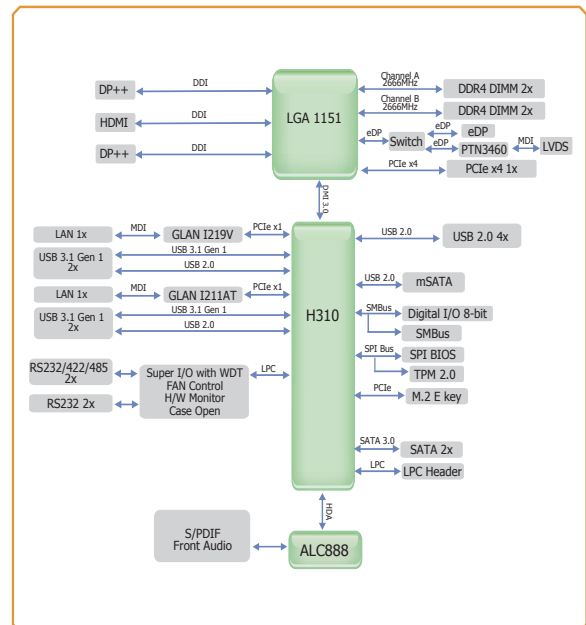
Note: If you would like to have the CPU configuration which is not listed on our ordering, please contact our sales representative.

Mechanical Drawing



Coming Soon

Block Diagram





Specifications

SYSTEM	Processor	8th Generation Intel® Core™ Processors, LGA 1151 Socket, TDP up to 80W Intel® Xeon E-2176G Processor Intel® Core™ i7-8700 Processor Intel® Core™ i5-8500 Processor Intel® Core™ i3-8100 Processor Intel® Pentium G5400 Processor Intel® Celeron G4900 Processor	
	Memory	Two 260-pin SODIMM up to 32GB	Dual Channel DDR4 2666MHz
	Chipset	Intel® H310 Chipset	
	BIOS	AMI SPI 128Mbit	
	GRAPHICS	Controller	Intel® UHD Graphics 630 (only Pentium G5400, Celeron G4900 support 610)
	Feature	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	
	Display	1 x LVDS/eDP (eDP available upon request) 1 x HDMI 2 x DP++	LVDS: resolution up to 1920x1200 @ 60Hz eDP: resolution up to 4096x2304 @ 60Hz HDMI: resolution up to 4096x2160 @ 60Hz DP1.2: resolution up to 4096x2304 @ 60Hz
	Dual/Triple Displays	DP+HDMI+LVDS/eDP DP+DP+HDMI DP+DP+LVDS/eDP	
EXPANSION	Interface	1 x PCIe x4 (Gen 3) 1 x mSATA 1 x M.2 2230 E Key for BT/Wifi (USB/PCIe)	
AUDIO	Audio Codec	Realtek ALC888S-VD2-GR	
ETHERNET	Controller	1 x Intel® I219V PHY, 1 x Intel® I211AT PCIe (10/100/1000Mbps)	
REAR I/O	Ethernet	2 x GbE (RJ-45)	
	USB	4 x USB 3.1 Gen1 Type A Connector	
	Display	1 x HDMI 2 x DP++	
INTERNAL I/O	Serial	2 x RS-232/422/485 (2.0mm pitch) 2 x RS-232 (RS-232 w/ power)(2.0mm pitch)	
	Display	1 x LVDS Connector 1 x eDP (available upon request)	
	Audio	1 x Front Audio	
	SATA	2 x SATA 3.0 (up to 6Gb/s) 1 x SATA Power	
	DIO	1 x 8-bit DIO	
	SMBus	1 x SMBus	
	USB	4 x USB 2.0	
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds	
SECURITY	TPM	fTPM 2.0, dTPM 2.0 (opt.)	
POWER	Type	12V DC-in	
	Connector	DC jack colay 4 pins power connector (opt.)	
	RTC Battery	CR2032 Coin Cell	
	Consumption	TBD	
OS SUPPORT	Microsoft/Linux	Windows 10 IoT Enterprise 64-bit	Linux: Ubuntu 18.04
ENVIRONMENT	Temperature	Operating: 0 to 60°C	Storage: -40 to 85°C
	Humidity	Operating: 5 to 90% RH	Storage: 5 to 90% RH
	MTBF	TBD	
	MECHANICAL	Dimensions	Mini-ITX Form Factor
	Height	PCB: 1.6mm	Top Side: 20mm, Bottom Side: 3mm

Packing List

• 1 CS101 motherboard	
• 1 Serial ATA data with power cable (Length: 300mm)	A81-002013-000G

Optional Items

• USB 2.0 port cable (Length: 200mm)	332-753059-000G
• COM port cable (Length: 250mm, 1 x COM ports)	A81-015011-001G
• Serial ATA data with power cable (Length: 300mm)	A81-002013-000G
• 1 I/O shield	TBD

Assured Systems

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