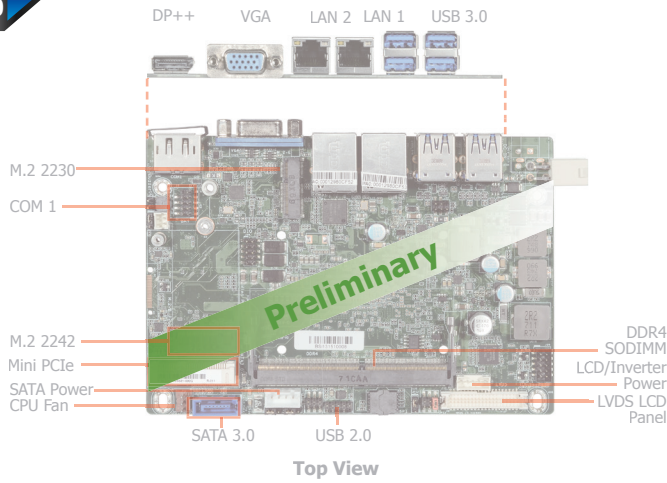
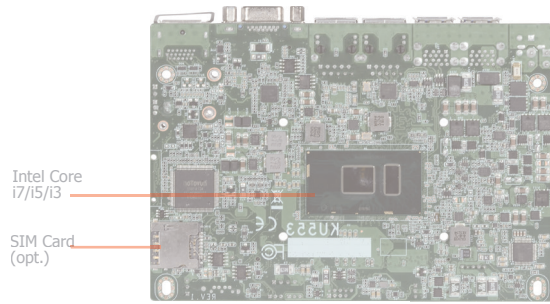


# CS551

C246/  
Q370/H310



Top View



Bottom View

## Features

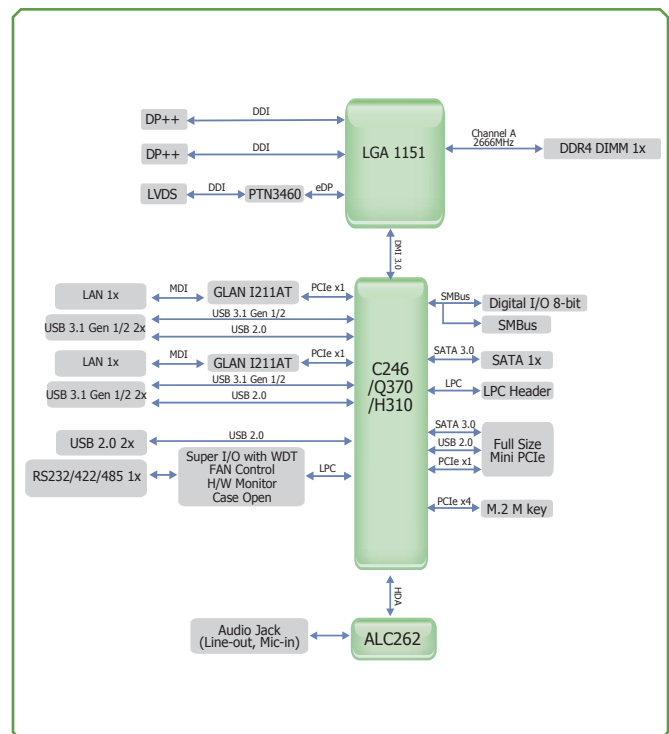
- 1 DDR4 SODIMM up to 32GB
- Three independent displays: LVDS + DP++\*2
- DP++ resolution up to 4096x2304 @ 60Hz
- Multiple expansion: 1 M.2 M Key, 1 Mini PCIe
- Rich I/O: 2 Intel GbE, 4 USB 3.1, 2 USB 2.0



## Mechanical Drawing



## Block Diagram



## Specifications

<b>SYSTEM</b>	<b>Processor</b>	9th/8th Generation Intel® Core™ Processors, LGA 1151 Socket, TDP up to 35W 8TH Gen Coffee lake CPU Core i7-8700T, 2.4Ghz(4.0Ghz),6C/12T,35W/25W(100C) Core i5-8500T, 2.1Ghz(3.5Ghz),6C/6T,35W/25W(100C) Core i3-8100T, 3.1Ghz,4C/4T,35W/25W(82C) Pentium G5400T, 3.1Ghz,2C/4T,35W/25W(100/88C) Pentium G4900T, 2.9Ghz,2C/2T,35W/25W(88C) 9th Gen Coffee lake-R CPU Core i7-9700TE, 2.2Ghz(3.6Ghz),8C/8T,35W(100C) Core i5-9500TE, 2.2Ghz(3.6Ghz),6C/6T,35W(100C) Core i3-9100T, 2.2Ghz(3.2Ghz),4C/4T,35W/25W(82C)	
	<b>Memory</b>	One 260-pin SODIMM up to 32GB	Single Channel DDR4 2666MHz (C246 with ECC Support)
	<b>BIOS</b>	Insyde SPI 128Mbit	
<b>GRAPHICS</b>	<b>Controller</b>	Intel® HD Graphics GT Series	
	<b>Feature</b>	OpenGL 4.5, 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 2 x DP++	LVDS: dual channel 48-bit, resolution up to 1920x1200 @ 60Hz DP++: resolution up to 4096x2304 @ 60Hz
	<b>Triple Displays</b>	LVDS + DP++ + DP++	
<b>EXPANSION</b>	<b>Interface</b>	1 x Full-size Mini PCIe (PCIe/USB2.0/USB3.1 Gen1 (option)) with SIM slot (option) 1 x M.2 M key 2280 (C246/Q370: PCIe x4 or H310: PCIe x2, SATA)	
<b>AUDIO</b>	<b>Audio Codec</b>	Realtek ALC888S	
<b>ETHERNET</b>	<b>Controller</b>	2 x Intel® I211AT/I210IT PCIe (10/100/1000Mbps)	
<b>REAR I/O</b>	<b>Ethernet</b>	2 x GbE (RJ-45)	
	<b>USB</b>	4 x USB 3.1 Gen2 (C246/Q370) or Gen1 (H310)	
	<b>Display</b>	2 x DP++	
<b>INTERNAL I/O</b>	<b>Serial</b>	1 x RS-232/422/485 (2.0mm pitch)	
	<b>USB</b>	2 x USB 2.0 (2.0mm pitch)	
	<b>Display</b>	1 x LVDS LCD Panel Connector	1 x LCD/Inverter Power
	<b>Audio</b>	1 x Audio (Line-out/Mic-in)	
	<b>SATA</b>	1 x SATA 3.0 (up to 6Gb/s)	1 x SATA Power
	<b>DIO</b>	1 x 8-bit DIO	
	<b>SMBus</b>	1 x SMBus	
<b>WATCHDOG TIMER</b>	<b>Output &amp; Interval</b>	System Reset, Programmable via Software from 1 to 255 Seconds	
<b>SECURITY</b>	<b>TPM</b>	fTPM 2.0	
<b>POWER</b>	<b>Type</b>	12VDC	
	<b>Connector</b>	Right Angle Connector (4-pin)	DC Jack (available upon request) Vertical Type Connector (4-pin) (available upon request)
	<b>Consumption</b>	TBD	
	<b>RTC Battery</b>	CR2032 Coin Cell	
<b>OS SUPPORT</b>	<b>Microsoft</b>	Windows 10 IoT Enterprise 64-bit RS1/RS5	
	<b>Linux</b>	Linux support (64-bit)	
<b>ENVIRONMENT</b>	<b>Temperature</b>	Operating: -5 to 65°C for 35W TDP / fan solution, -30 to 80°C for 25/15W TDP / fanless solution Storage: -40 to 85°C	
	<b>Humidity</b>	Operating: 5 to 90% RH	Storage: 5 to 90% RH
	<b>Low temp sensor / heater</b>	-thermistor for low temp heater control. -under minus degree as active temp. -Front & on board LED can show heater active status.	
	<b>MTBF</b>	TBD	
<b>MECHANICAL</b>	<b>Dimensions</b>	3.5" SBC Form Factor	146mm (5.75") x 102mm (4.02")
	<b>Height</b>	PCB: 1.6mm	Top Side: 16.3mm, Bottom Side: 4.0 mm
<b>CERTIFICATIONS</b>		CE, FCC, RoHS	