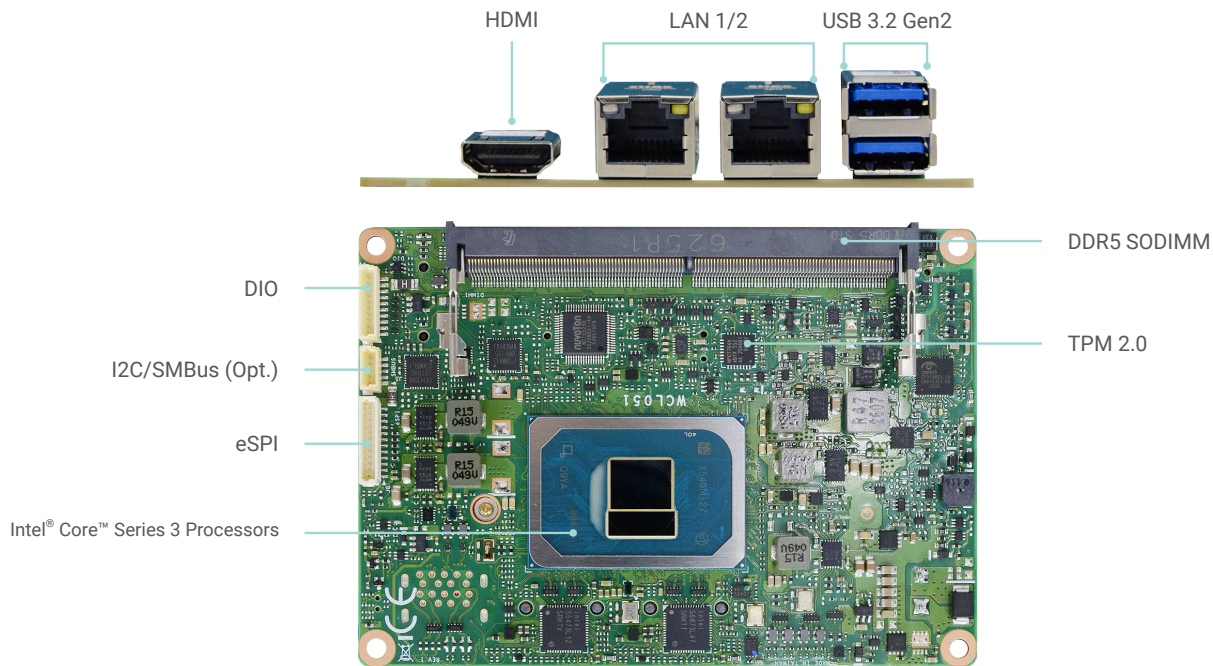


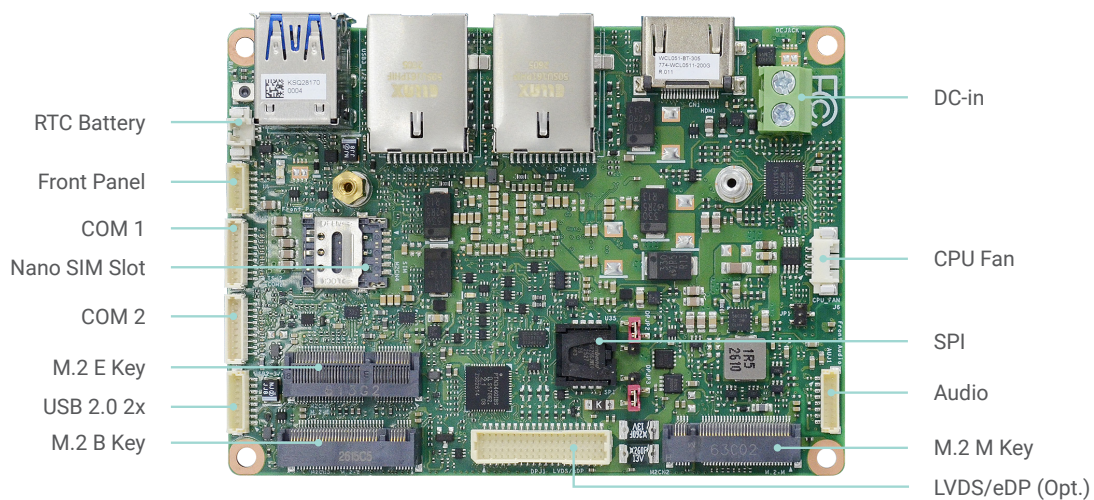
WCL051

ULT

Intel® Core™ Series 3 Processors
2.5" Pico-ITX



Bottom View



Top View

KEY FEATURES



DDR5

1 DDR5 6400MHz SODIMM



4K High Resolution

Supports 4K/2K resolution



Dual Display

HDMI + LVDS/eDP (Opt.)



Multiple Expansion

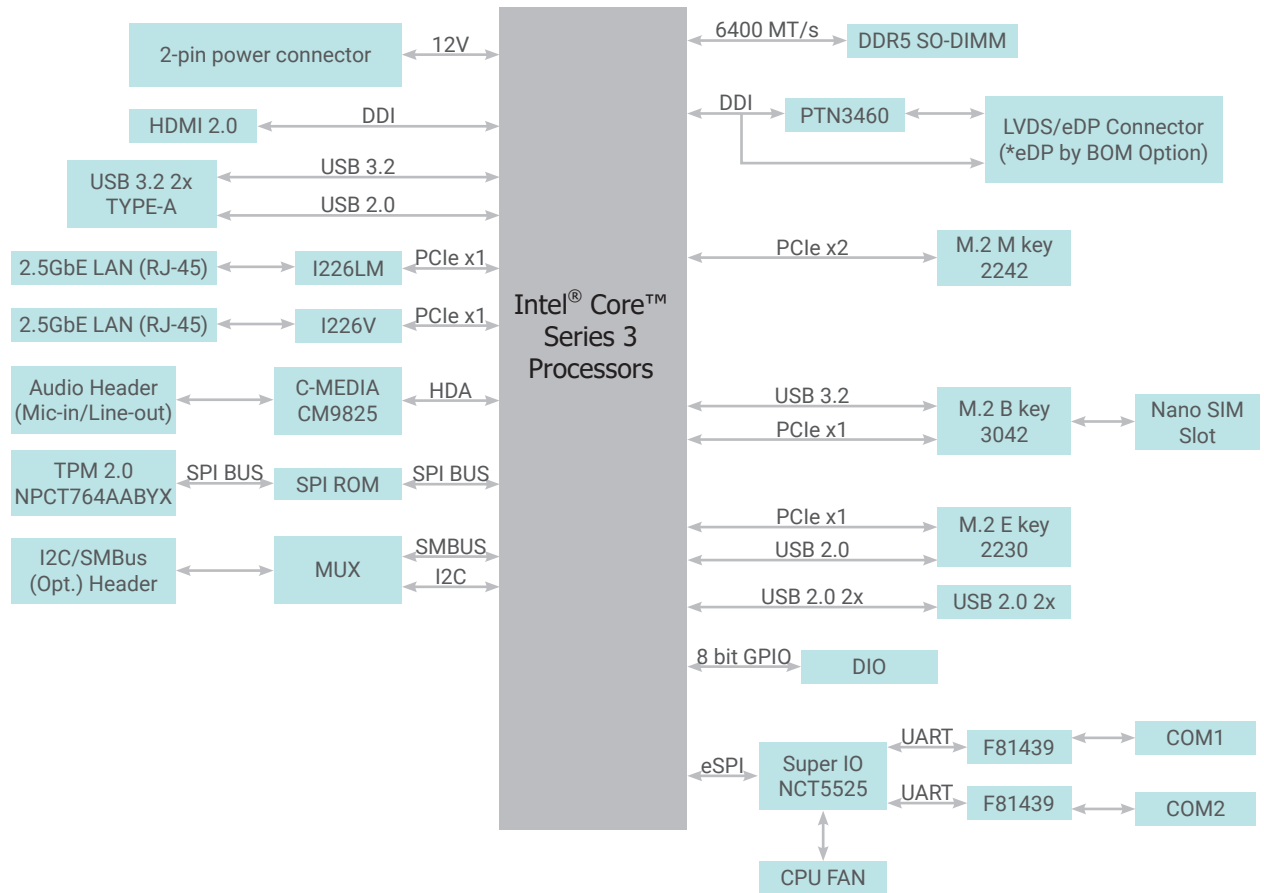
1 M.2 E Key,
1 M.2 B Key,
1 M.2 M Key



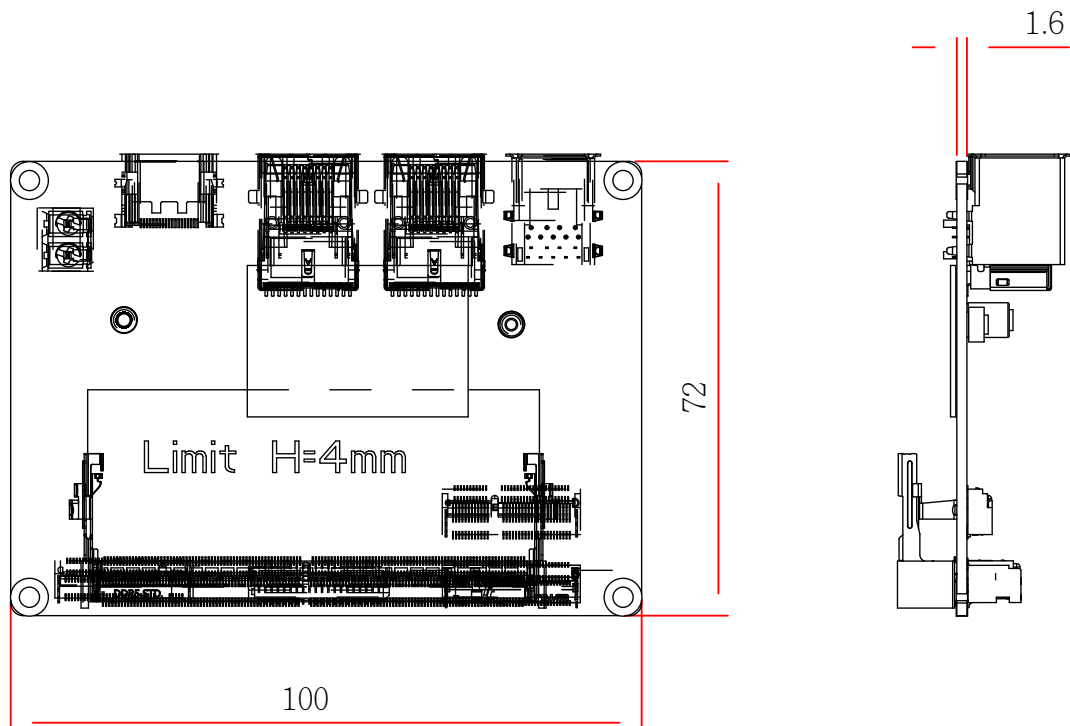
Rich I/O

2 Intel 2.5GbE, 2 COM,
2 USB 3.2, 2 USB 2.0

BLOCK DIAGRAM



MECHANICAL DRAWING



SPECIFICATION

SYSTEM	Processor	Intel® Core™ Series 3 Processors (Code Name: Wildcat Lake) Intel® Core™ 7 350, 6 Cores, 1.5~4.8GHz, 15W Intel® Core™ 7 360, 6 Cores, 1.5~4.8GHz, 15W Intel® Core™ 5 320, 6 Cores, 1.5~4.6GHz, 15W Intel® Core™ 5 330, 6 Cores, 1.5~4.6GHz, 15W Intel® Core™ 3 305, 6 Cores, 1.5~4.3GHz, 15W Intel® Core™ 3 304, 5 Cores, 1.5~4.3GHz, 15W
	Memory	One 262-pin SODIMM up to 64GB Single Channel DDR5 6400MHz
	BIOS	AMI SPI 512Mbit
GRAPHICS	Controller	Intel® X®3 Graphics
	Feature	OpenGL 4.6, DirectX 12 Ultimate, OpenCL 3.0, Vulkan 1.3 HW Decode: HEVC, VP9, AV1, AVC, VVC (H.266) HW Encode: HEVC, VP9, AV1, AVC
	Display	1 x HDMI 1 x LVDS/eDP (Opt.) HDMI: resolution up to 4096x2160 @60Hz LVDS: dual channel 18/24-bit, resolution up to 1920x1200 @60Hz eDP: resolution up to 2560x1440 @ 60Hz (2 Lane)
	Dual Displays	HDMI + LVDS/eDP (Opt.)
EXPENSION	Interface	1 x M.2 2230 E Key (PCIe Gen4 x1/USB 2.0), for Wi-Fi/BT. 1 x M.2 3042 B Key (PCIe Gen4 x1/USB 3.2 Gen2 x1) with 1 x Nano SIM slot for 4G/5G. 1 x M.2 2242 M key (PCIe Gen4 x2), for storage.
AUDIO	Audio Codec	CMEDIA CM9825
ETHERNET	Controller	2 x Intel® I226V/LM (10/100/1000/2500Mbps)
REAR I/O	Ethernet	2 x 2.5GbE (RJ-45)
	USB	2 x USB 3.2 Gen2
	Display	1 x HDMI
INTERNAL I/O	Serial	2 x RS-232/422/485 (1.00mm pitch, 2 x 9-pin header)
	USB	2 x USB 2.0 (1.00mm pitch, 1 x 8-pin header)
	Display	1 x 40 pin LVDS/eDP (Default: LVDS)
	Audio	1 x Line-out/Mic-in (1.00mm pitch, 1 x 8-pin header)
	Smart Fan	12V (4-wire)
	DIO	1 x 8-bit DIO (1.00 pitch, 1 x 10-pin header)
	Front Panel	1 x front panel (power button/reset button, power LED, HDD act LED)
	SMBus	1 x I2C/SMBus (Opt.)
WATCHDOG TIMER	Output & Interval	System Reset, Programmable via Software from 1 to 255 Seconds
SECURITY	TPM	dTPM2.0
POWER	Type	Single 12V (+/- 5%) DC
	Connector	2-pin Terminal Block
	Consumption	TBD
	RTC Battery	CR2032 Coin Cell
OS SUPPORT	OS Support (UEFI Only)	Windows 11 IoT Enterprise LTSC 24H2
		Linux
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
MECHANISM	Dimensions	2.5" Pico-ITX Form Factor 100mm (3.94") x 72mm (2.83")
	Height	PCB: 1.6 mm Top Side: 16mm Bottom Side: 9.4mm
STANDARDS AND CERTIFICATIONS	Certifications	CE, FCC, RoHS, UKCA

ORDERING INFORMATION

Model Name	P/N	Processor	Memory	Display	2.5 GbE	RS-232/422/485	USB 3.2 Gen2	USB 2.0	Power	Thermal	Temp.
WCL051-BT-350	770-WCL0511-000G	Intel® Core™ 7 350, 6C, 15W	1 DDR5 SODIMM	HDMI + LVDS	2	2	2	2	12VDC	Cooler	0~60°C
WCL051-BT-320	770-WCL0511-100G	Intel® Core™ 5 320, 6C, 15W									0~60°C
WCL051-BT-305	770-WCL0511-200G	Intel® Core™ 3 305, 6C, 15W									0~60°C

PACKING LIST

• 1 WCL051 board	
• 1 Cooler (Height: 26 mm)	A71-108171-A00G

OPTIONAL ITEMS

• Power adapter (60W, 12V)	671-106012-000G
• 2-pin power to DC jack cable (Length: 115mm)	A81-004013-000G
• COM port cable (Length: 250mm, 1x COM port)	A81-015130-018G
• USB 2.0 cable (Length: 200mm, 2 USB ports)	A81-001201-018G
• Front panel cable (Length: 250mm)	A81-009899-018G
• Audio cable (Length: 200mm)	A81-022043-054G
• DIO cable (Length: 200mm)	A81-009715-018G
• SMBus cable (Length: 200mm)	A81-009716-018G
• Heat spreader (Height: 11 mm)	TBD