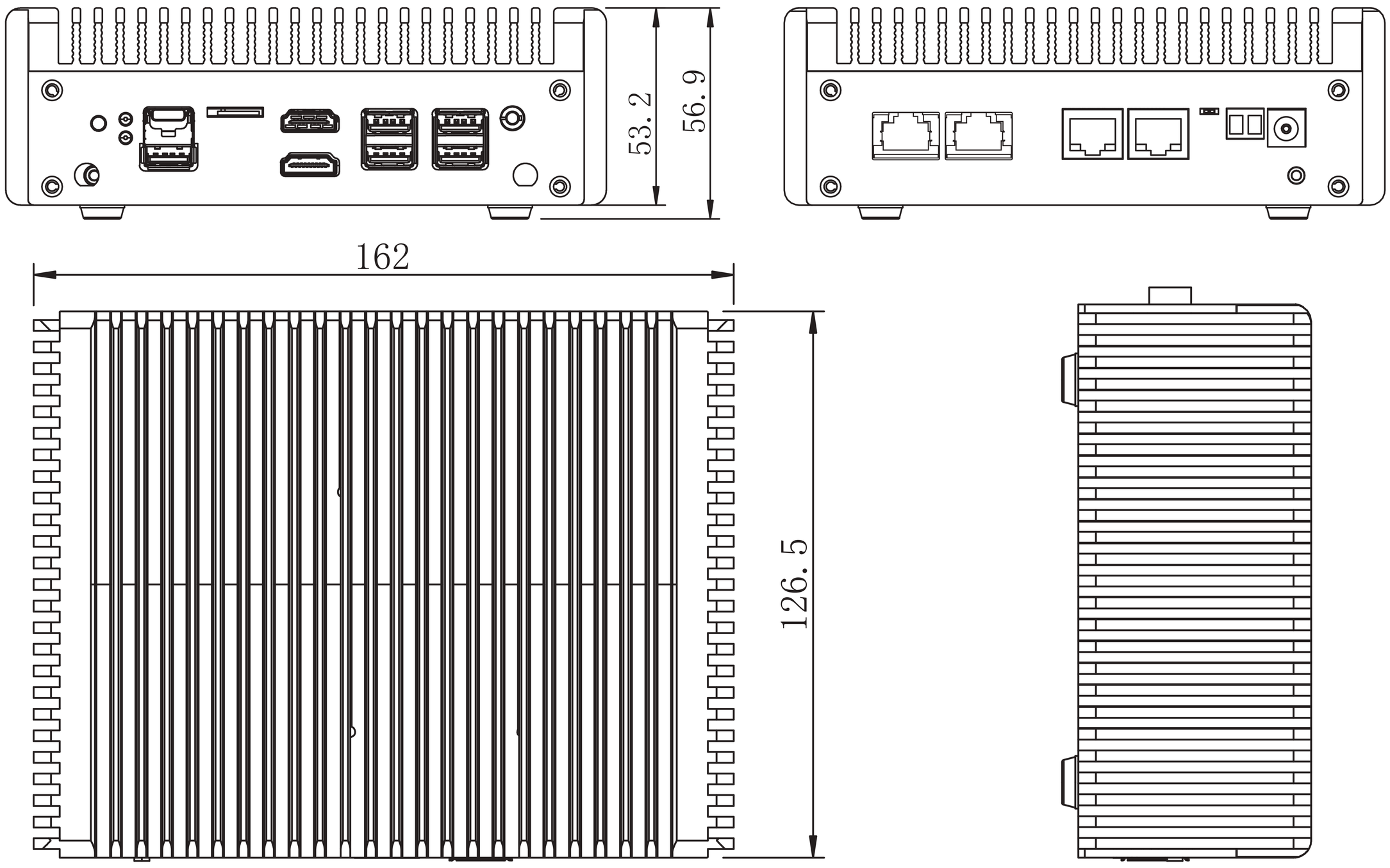
CW-S7 Pro-X550-20G Specification Manual

Product Information:

CW-S7 Pro



CPU：N150 / N355

Cooling: Copper heat block, aluminum alloy case, fin-style passive cooling

Power Consumption: 6W/15W (TDP, actual power depends on load)

Color: Cool Black / Iron Gray

Weight: 1.3 kg

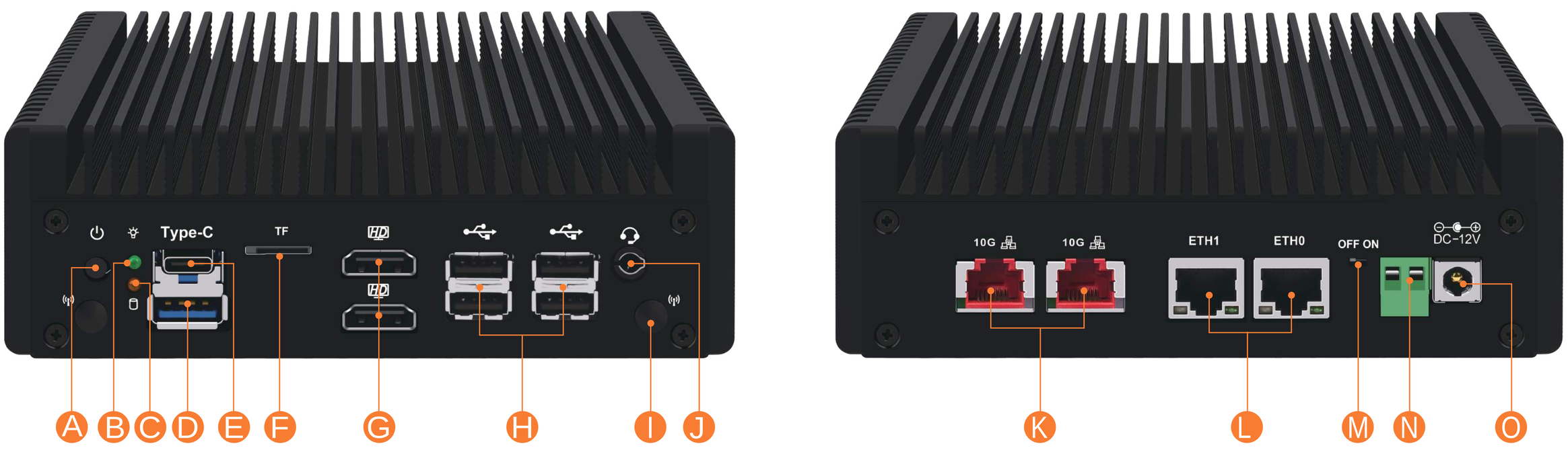
Structure: Aluminum alloy material

Power Supply: DC 12V — N150 (5A) i3-N355 (8A)

Product Dimensions: 162 mm × 126.5 mm × 53.2 mm

Mounting: Desktop or Wall-mounted

Operating Environment: 0°C ~ 70°C, Relative Humidity 5%–85%



A ON/OFF B Hard Drive LED C Power LED D USB 3.2 (Gen1 5Gbps) E Type-C F TF G HDMI 2.0 H USB 2.0 I Antenna Port

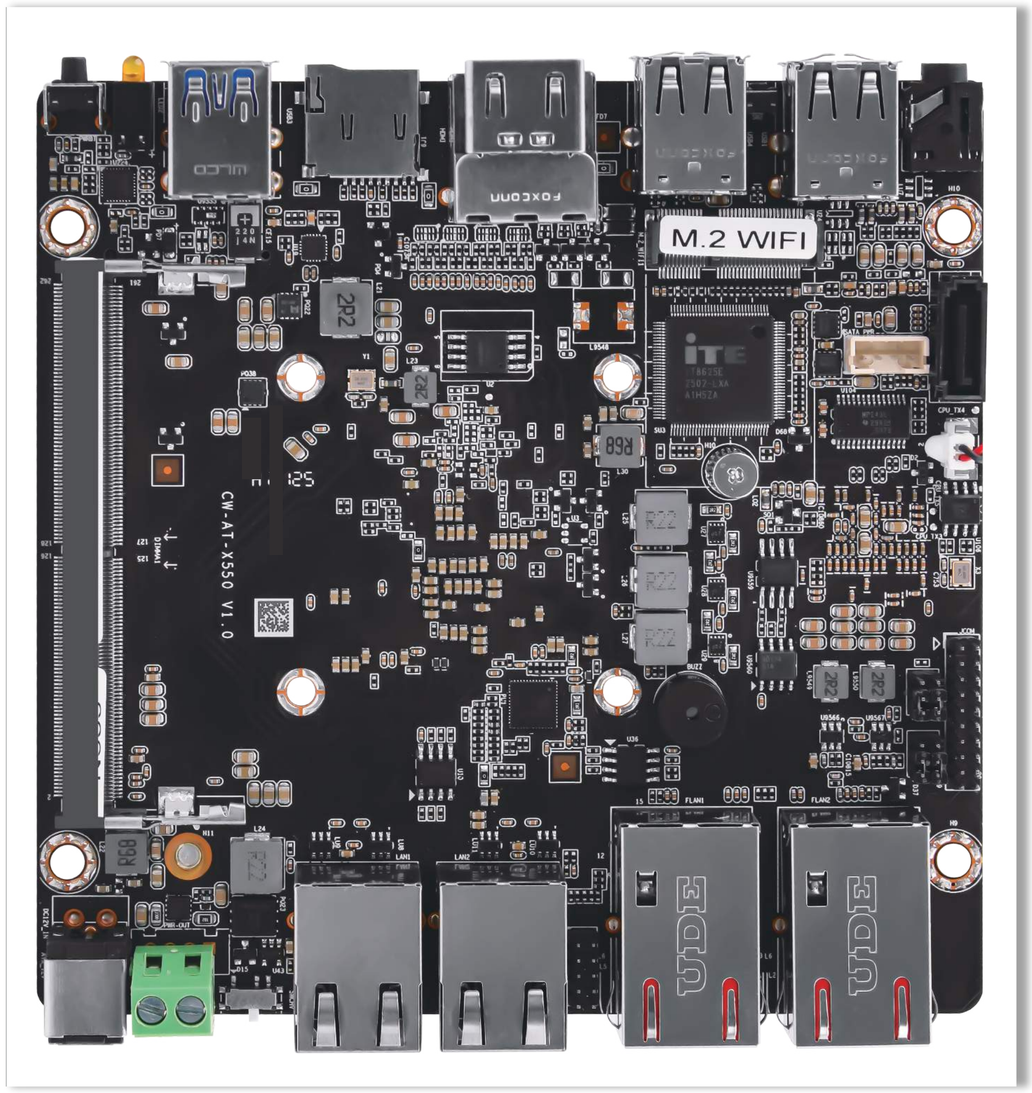
J Audio Port K Intel X550-T2 10GbE RJ45 Port L RJ45 2.5GbE Port M Auto Power On N Phoenix Power Input O DC-12V 55*25

Key Features of the Motherboard:

Motherboard NO.: CW-MINI-TWL-20G

- The new Twin Lake offers a 10–15% overall performance improvement in clock speed compared to the previous generation.
- Intel X550-T2 10GbE Controller Chip — Dual 10GbE Ports with 10G Speed
- Equipped with 2 onboard Intel I226-V 2.5G Ethernet controller chips
- Supports 2 × M.2 NVMe slots — one converted from M.2 E Key, and another native slot located on the same side as the CPU
- 1 × SO-DIMM DDR5 laptop memory slot, supporting up to 48GB
- 1 × USB 3.2 Gen1 + 4 × USB 2.0, Type-C (USB 2.0 speed, data only, no display output)
- Dual HDMI display output supporting both synchronous and asynchronous display modes, up to 4K@60Hz
- M.2 E Key Wi-Fi slot supports Wi-Fi 6 / Wi-Fi 7 and Bluetooth modules, and can be expanded to M.2 NVMe signal
- Onboard SATA 3.0 standard connector supports 2.5"/3.5" HDD/SSD with 4-pin power connector
- TF card slot supports data storage and partial system boot

intel | 10G Giga LAN | 2500 Giga LAN | M.2 NVMe | DDR5 | HDMI 2个 | M.2 WiFi6 | SATA 3.0 | USB 5个 | Audio | TFSlot | Type-C



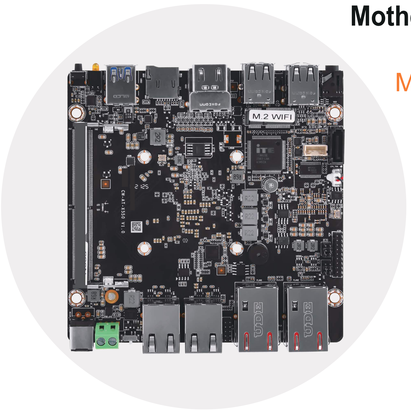
Specifications:

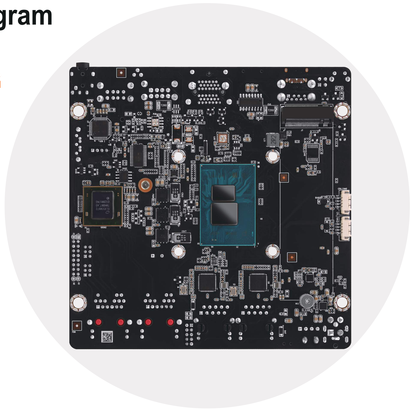
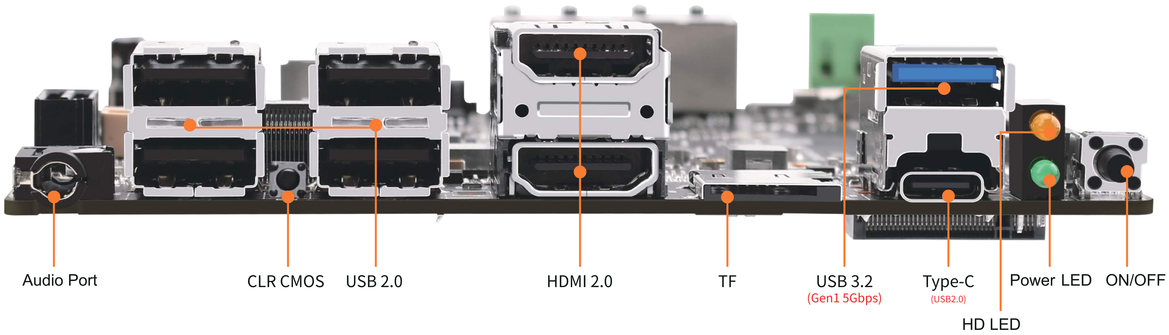
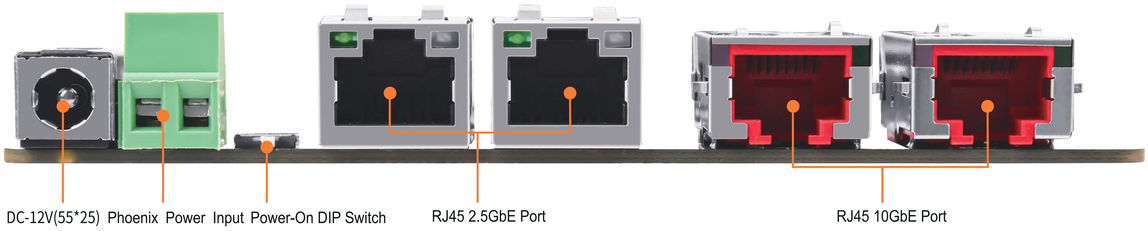
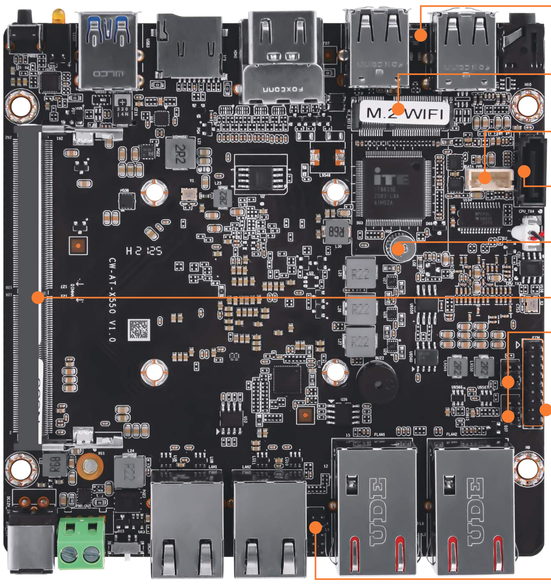
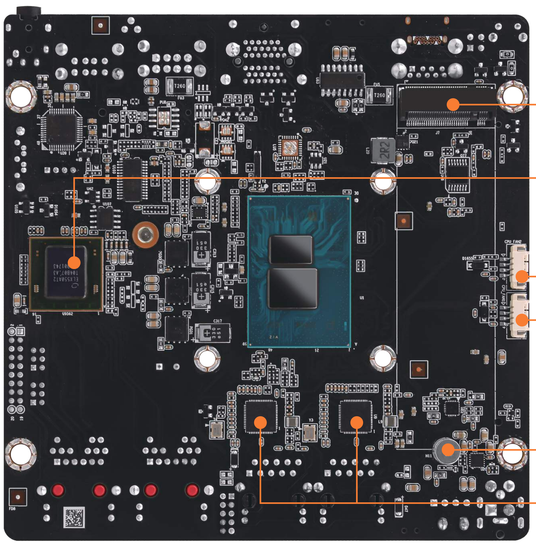
规格	
CPU	Intel N150 / N355
Code	Twin Lake / Alder Lake-N
Graphics	intel® UHD Graphics
Display	2 * HDMI 2.0 4096 x 2160@60Hz
RAM	1 × SO-DIMM DDR5 4800MHz (compatible with 5200/5600MHz), up to 48GB
TF	1 × TF Slot, supports data storage and partial system boot
USB	4 × USB 2.0 / 1 × USB 3.2 Gen1 (5Gbps) / 1 × Type-C (USB 2.0 speed)
Power	DC-12V N150 (5A) N355(8A)
NiC	2 × Intel I226-V 2.5G NICs / 2 × Intel X550-T2 10GbE
Storage	**Front Side:** 1 × M.2 E Key Wi-Fi slot, convertible to NVMe (default reserved for wireless module) / 1 × SATA 3.0 **Back Side:** 1 × M.2 NVMe 2280 slot, located on the same side as the CPU, reserved for system boot and storage expansion
Pin Header	2 × RS232/RS485 switchable jumpers / 1 × JCOM header / 1 × SATA 3.0 (4-pin standard connector)
Wireless	M.2 E Key 2230 slot, supports Wi-Fi 6 / Wi-Fi 7 and Bluetooth; can be converted to M.2 NVMe via an adapter board
TDP	6W / 15W (TDP, actual power depends on CPU operating conditions)
Cooling	Copper heat block, aluminum alloy chassis, fin-style passive cooling
MB Size	126mm(W) X 126mm(L)
Operating	0–70°C, Relative Humidity 5%–85%

规格		
Front I/O Ports	1 * Power Button 1 * HD Indicator 1 * Power Indicator 1 * Type-C(USB-C 2.0) 1 * USB3.2(Gen1 5Gbps) 2 * HDMI 2.0 1 * TF	4 * USB 2.0 1 * Audio Port 2 * Wi-Fi Antenna Holes 1 * CLR CMOS
Rear I/O Ports	1 * DC-12V(55*25) 1 * Phoenix Terminal Power Input 2 * RJ45 10GbE Ports 1 * Auto Power-On DIP Switch 2 *RJ45 2.5GbE Ports	
Internal I/O Connectors	1 * BIOS Reset Button 1 * M.2 E Key 2230 Wi-Fi Slot 1 * 4-Pin SATA Power Connector 1 * SATA 3.0 Connector 1 * Wi-Fi Antenna Connector 1 * DDR5 SO-DIMM Slot 2 * RS232/485 COM Switchable Jumpers 1 * 2-Pin Reset Header 1 * 2-Pin Power Header 1 * GPIO排针 1 * M.2 NVMe Slot	1 * Intel X550-T2 Chip 1 * CPU FAN2 Header 1 * CPU FAN1 Header 1 * M.2 2280 SSD Standoff

Motherboard Front and Back Diagram

Model：CW-S7 Pro-X550-20G





Connector Description