INDUSTRIAL MOTHERBOARD

CT-DWC01

3.5" SBC Industrial Motherboard with Intel® Core™ 7/5/3 Processors, Intel® Xe3 Graphics, 2x 2.5GbE LAN, and M.2 4G LTE/5G Expansion



Features

- Supports Intel® Core™ 7 350 / Core™ 5 320 / Core™ 3 305 Processors
- 1x 262-pin DDR5-6400 SO-DIMM, up to 32GB
- 2x Intel® i226LM 2.5GbE LAN
- Intel® Xe3 Graphics with HDMI 2.1, DP 1.4, and eDP/LVDS display interfaces
- 1x M.2 M-Key 2280 NVMe, 1x M.2 E-Key 2230
- 1x M.2 B-Key 2242/3042/3052 NVMe/4G LTE/5G, 1x Dual Nano SIM Socket
- 1x USB 3.2 Gen 2 Type-A, 2x USB 3.2 Gen 1 Type-A, 1x USB4 Type-C (20Gbps, 15W PD)
- 1x RS-232/422/485, 3x RS-232, 1x GPIO (8-bit GPIO)
- Supports DisplayPort output via USB4 Type-C
- TPM 2.0 supported
- Operating temperature -10°C to 60°C (with 0.6 m/s airflow)
- Wide-range DC input 9-36V

Specifications

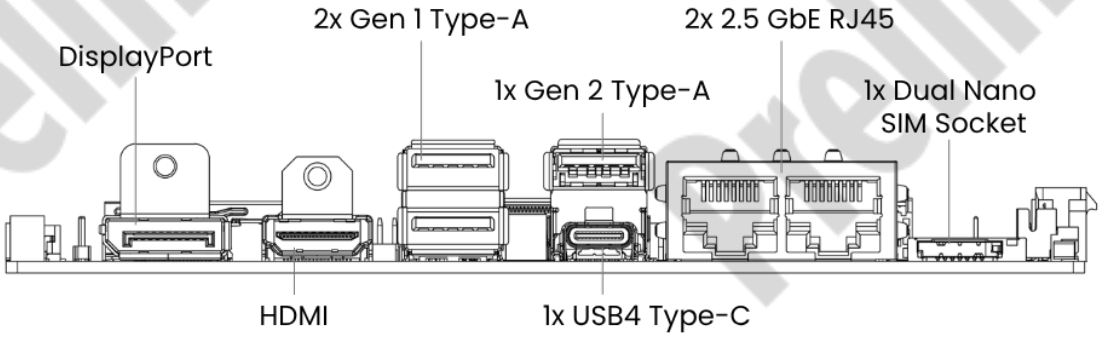
System	
Processor	• Intel® Core™ 7 350 Processor, 6C/6T, 6MB Cache, 1.5 GHz (up to 4.8 GHz), 15W TDP • Intel® Core™ 5 320 Processor, 6C/6T, 6MB Cache, 1.5 GHz (up to 4.6 GHz), 15W TDP • Intel® Core™ 3 305 Processor, 6C/6T, 6MB Cache, 1.5 GHz (up to 4.3 GHz), 15W TDP
System Chipset	SoC
LAN Chipset	GbE1: Intel® i226LM 2.5GbE LAN GbE2: Intel® i226LM 2.5GbE LAN
Audio Codec	Realtek® ALC888S with 5W Amplifier
System Memory	1x 262-pin DDR5-6400 SO-DIMM, up to 32GB
Graphics	Intel® Xe3 Graphics
BIOS	AMI BIOS
Watchdog	0-255 seconds
TPM	TPM 2.0
Display	
Display Port	1x DP 1.4
HDMI	1x HDMI 2.1
Internal Display	1x eDP 1.5 / 1x LVDS (via shared connector)
Storage	
M.2	1x M.2 M-Key 2280 (PCIe Gen4 x2, NVMe)
Expansion	
M.2	1x M.2 E-Key 2230 (PCIe Gen4 x1, USB 2.0, CNVi), supports Wi-Fi/Bluetooth 1x M.2 B-Key 2242/3042/3052 (PCIe Gen4 x1, USB 3.0), supports NVMe/4G LTE/5G modules
I/O	
LAN	2x 2.5GbE RJ45
SIM	1x Dual Nano SIM Socket
USB	1x USB 3.2 Gen 2 Type-A (10Gbps) 2x USB 3.2 Gen 1 Type-A (5Gbps) 1x USB4 Type-C (20Gbps, DisplayPort, 15W PD [5V/3A])
Internal I/O	
Audio	1x Line-Out (internal connector)
COM	1x RS-232/422/485 3x RS-232
GPIO	1x 8-bit GPIO (4 in and 4 out)
OOB	Internal header
USB	2x USB 2.0 Pin Headers (supports 4x USB 2.0 ports)
Others	1x Front Panel Connector 1x Inverter Connector (12V/5A output) 1x Touch Control Front Panel Connector (Volume +/-, Brightness +/-, Power SW, Power LED)
Operating System	
Windows	Windows 11 LTSC
Linux	Ubuntu 22.04 / 24.04 LTS
Power	
Power Adapter	Optional AC/DC 12V/5A, 60W Optional AC/DC 20V/7.5A, 150W
Power Mode	AT, ATX
Power Supply Voltage	DC IN 9-36V
Power Connector	Micro-Fit 3.0, 2x2-pin
Power Protection	OVP (Over Voltage Protection) OCP (Over Current Protection) Reverse Polarity Protection DC Surge Protection

Environment	
Form Factor	3.5" Embedded SBC
Operating Temperature	-10°C to 60°C (with 0.6 m/s airflow)
Storage Temperature	-20°C to 75°C
Relative Humidity	10% to 95% (non-condensing)
Certification	CE, FCC Class B, ICES-003, UKCA (preliminary listing)
Physical	
Dimensions	146 x 102mm
Weights	0.58kg

* All specifications and photos are subject to change without notice.

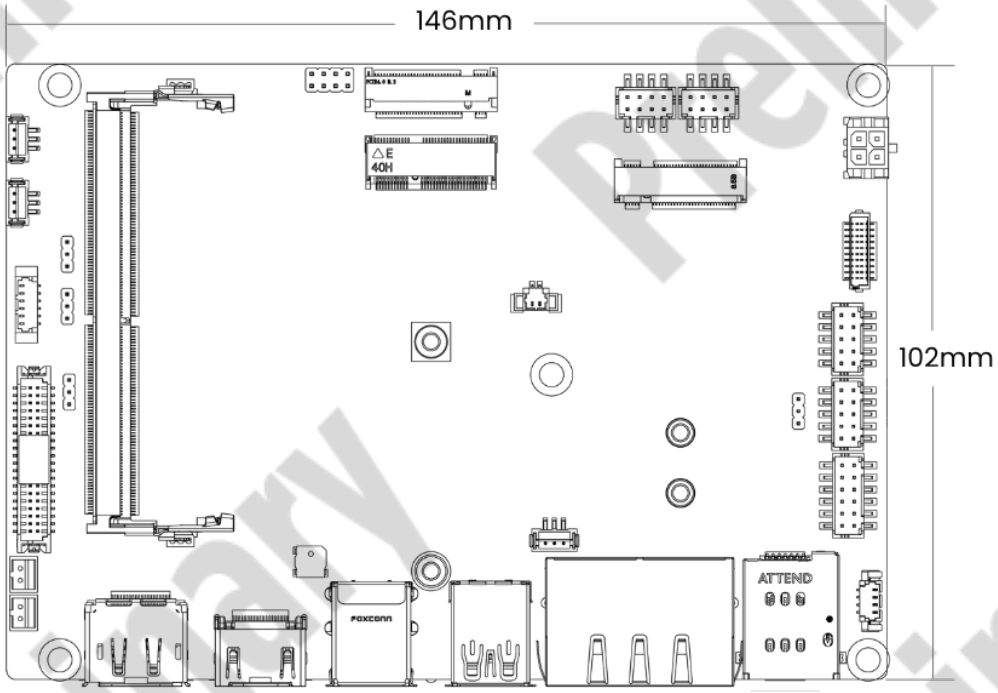
Preliminary

External I/O Mechanical Layout



Dimension

Unit: mm



Preliminary

Compliances and Standards

Operating Temperature	• -10°C to 60°C (with 0.6 m/s airflow) • IEC 60068-2-1:2007 • IEC 60068-2-2:2007 • IEC 60068-2-3:2007 • IEC 60068-2-14:2009
EMC	EMI: • CE • FCC Class B (47 CFR part 15.109 and part 15.107) • ICES-003 • UKCA EMC Compliance: ESD: 8K / 15K Industrial EMC: • EN 61000-4-2:2009 • EN IEC 61000-4-3:2020 • EN 61000-4-4:2012 • EN 61000-4-5:2014 + A1:2017 • EN 61000-4-6:2014 Safety: • UL Safety Pending: UL62368-1, 3rd Ed., (cULus) • Test procedure: CB Scheme • Standard: IEC 62368-1:2018 Green Product: • RoHS 3.0 (Directive 2015/863/EU) • REACH

US Exports And Tariff Codes

ECCN	5A992.c
HTS	8504.90.2000
Schedule B	8473.30.0002

Preliminary

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