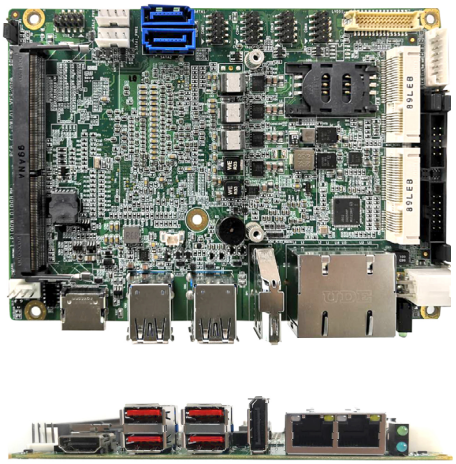
C&T SOLUTION INC.

INDUSTRIAL MOTHERBOARD

CT-DWL01

3.5" SBC Industrial Motherboard with 8th Gen. Intel® Core™ Processor i3/i5/i7 & Intel® Celeron® Processor



FEATURES

- Support 8th Gen. Intel® Core™ Processor i3/i5/i7 & Intel® Celeron® Processor
- 1x 260-pin DDR4 2400 SO-DIMM. Max. up to 32GB
- 2x Intel® GbE (Support Wake-on-LAN and PXE)
- Triple independent display supported by:
  1x DisplayPort support resolution 4096 x 1200
  1x Dual-channel, up to 24-bit LVDS optional 1x eDP via internal connector
  1x HDMI support resolution 1920 x 1200 (Optional)
- 1x Front Panel with Audio support by internal header
- 2x 4bit GPIO header
- 2x Mini PCIe (Gen3) w/ SIM slot support
- 4x USB 3.2 Gen 2 (10Gbps), 4x RS-232/422/485 internal headers, 2x USB 2.0 internal header
- 2x SATA 6.0Gb/s
- Watchdog timer 1~225sec. system reset
- TPM 2.0 Supported

SPECIFICATIONS

System	
Processor	Support 8th Gen. Intel® WL-UE Processor (15W TDP) - Intel® Core™ i7-8665UE Processor 8M Cache, up to 4.40 GHz - Intel® Core™ i5-8365UE Processor 6M Cache, up to 4.10 GHz - Intel® Core™ i3-8145UE Processor 4M Cache, up to 3.90 GHz - Intel® Celeron® Processor 4305UE 2M Cache, 2.00 GHz
System Chipset	SoC
LAN Chipset	GbE1: Intel® I219LM (Support Wake-on-LAN and PXE)
	GbE2: Intel® I210-IT (Support Wake-on-LAN and PXE)
Audio Codec	Realtek ALC888S HD Audio Codec
Memory	1x 260-Pin DDR4 2400MHz SO-DIMM slot
Max. Size	32GB
BIOS	AMI uEFI 256MB SPI flash
Watchdog	Software Programmable Supports 1~255 sec. System Reset
TPM	TPM 2.0 Through Infineon® SLB9665TT2.0 or Equivalent
Display	
Chipset	Intel® UHD Graphics 620 for Core series Intel® UHD Graphics 610 for Celeron series
Interface	1x DisplayPort support resolution 4096 x 1200 1x LVDS & 1x EDP internal connector 1x HDMI support resolution 1920 x 1200 (Optional)
Multiple Display	Triple Display (HDMI Optional)
Expansion	
Mini PCI Express	2x Mini PCIe x1 (Gen3)
Rear I/O	
LED	1x Power LED, 1x HDD LED indicator
LAN	2x RJ45
Display	1x HDMI 1.4, 4096x2160@30/24Hz 1x DisplayPort DP 1.2, 4096x2304 @60Hz
USB	4x USB 3.2 Gen 2 (10 Gbps)
Internal I/O	
Display	1x LVDS Dual-channel, up to 24-bit (1920x1200) 1x eDP1.4 (4096x2306 @60Hz) (Optional)
COM	4x RS-232/422/485 internal 2.0PH headers
USB	2x USB 2.0 internal 2.0PH headers
SATA	2x SATA Gen3, w/2x 4pin SATA Power connector
Audio	1x Front panel audio
DIO	2x 4-bit DIO (4-in/4-out) with 2.0 PH Header
Others	1x Front panel 1x 4-pin PWM samrt fan 1x Debug Port 1x RTC battery by cable
Operating System	
Windows	Microsoft® Windows® 10 64-bit (RS5 or above)
Linux	Linux Kernel 5.x (Fedora 30 or above / Ubuntu 19.04 or above)
Power	
Power Connector	4-pin CPU P4 connector
Power Input	AT/ ATX 12V DC Input
Management	ACPI
Mechanical & Environment	
Form Factor	3.5" Embedded SBC
Dimension	146 x 102mm
Operating Temp.	-40°C ~ 70°C, 95% (non-condensing), operating
Storage Temp.	-40°C ~ 85°C, 95% (non-condensing), Non-operating
Relative Humidity	10% ~ 90% relative humidity, non-condensing

ORDERING INFORMATION

Packing List

- 1x Heat Sink
- 1x Front Panel Cable, 2x Buttons, 2x Audio, 2x LED Cable 300mm
- 1x COM Port Cable 300mm
- 1x SATA Y-Cable with SATA and SATA Power 100mm
- 1x USB 2.0 Y Cable to 2x USB2.0 Type-A Cable 300mm
- 1x Driver DVD
- 2x Screw for mini-PCI-e Card
- 4x Cooper Stud and screw for Heatsink

Ordering Information

MODEL NO.	DESCRIPTION
CT-DWL01-8665UE	3.5" SBC with Intel® Core™ i7-8665UE, DP, HDMI, 2x LAN, 4x USB
CT-DWL01-8365UE	3.5" SBC with Intel® Core™ i5-8365UE, DP, HDMI, 2x LAN, 4x USB
CT-DWL01-8145UE	3.5" SBC with Intel® Core™ i3-8145UE, DP, HDMI, 2x LAN, 4x USB
CT-DWL01-4305UE	3.5" SBC with Intel® Celeron® 4305UE, DP, HDMI, 2x LAN, 4x USB

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

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Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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