



SLP-WHG-EtherCAT

8th Gen Intel® Core™ Processor Core™ SoC
i7/i5/i3 & Celeron® BGA Processor Fanless
Expandable Slot PC EtherCAT Master Controller

- > Onboard 8th Gen Intel Core SoC i7/i5/i3 & Celeron BGA Processor
- > 2 x 260-pin DDR4 2133 MHz SO-DIMM Socket, up to 64GB Max (Non ECC Only)
- > Rich I/O, 3-USB3.1, 3-HDMI, 4-COM, 4-LAN
- > 1 x Key A M.2 2230 (supports Wifi, 1 x PCIe*1 and USB2.0 signal)
- > Fanless operation temperature from -20°C ~ 50°C (WT)
- > CE/FCC Class A
- > Wide range DC power input from +12~24V
- > Up to 128-axis motion control & 11200 I/O point control
- > EtherCAT cycle times up to 125µs
- > Wide range of compatible EtherCAT slaves

+ Spec

System Information

Processor	Onboard 8th Gen Intel® Core™ SoC i7/i5/i3 & Celeron® BGA Processor Intel® Core™ i7-8665UE (15W, 8M Cache, up to 2.0 GHz) Intel® Core™ i5-8365UE (15W, 8M Cache, up to 1.8 GHz) Intel® Core™ i3-8145UE (15W, 4M Cache, up to 1.6 GHz) Intel® Core™ Celeron 4305UE (15W, 2M Cache)
System Memory	2 x 260-pin SODIMM socket Max. up to 64GB DDR4 2133MT/s
BIOS Information	AMI uEFI BIOS 256 Mbit SPI Flash ROM
Watchdog Timer	H/W Reset, 1sec. ~ 65535sec.
H/W Status Monitor	Monitoring CPU & System Temperature and Voltage
TPM	Onboard TPM 2.0
SBC	EMX-WHLGP

Expansion

Expansion	1 x PCIe*1 slot 1 x PCIe*4 slot 1 x M.2 Key-A 2230 for Wi-Fi & BT Module 1 x M.2 Key-B 3042/2242/2260/2280, support SATA 3/PCIe III x 1/USB 2.0 and internal SIM slot 1
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Storage

Storage	1 x M.2 Key-B 3042/2242/2260/2280, support SSD(share with expansion slot) 1 x 2.5" Drive Bay (internal)
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I/O

USB Port	3 x USB3.1 Gen1 1 x USB Type C w/o ALT mode
COM Port	4 x RS-232
SIM Slot	1 x internal SIM slot
Antenna	2 x Antenna with dust cover
PS/2	1 x PS/2 Keyboard 1 x PS/2 Mouse

System Control

Power Button	1 x Power On/Off
LED Indicator	1 x Power LED 1 x HDD LED

Display

Graphic Chipset	Intel® Processor Graphics
Spec. & Resolution	3 x HDMI 1.4b: 3840 x 2160 @ 30 Hz
Multiple Display	Triple Display

Audio

Audio Codec	Realtek ALC888S
Audio Interface	Line-Out, Mic-in

Certifications

Certification Information	CE/FCC Class A
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Ethernet

LAN Chipset	1 x Intel® I219-LM 1 x Intel® I210-IT
LAN Port	3 x RJ-45 1 x RJ45 for EtherCAT

Power Requirement

DC Input	DC in +12V ~ +24V), wide voltage
DC Input Connector	3-Pin Terminal Block (V+, V-, GND)
Power Mode	AT/ATX (ATX is default setting)

Mechanical & Environmental

Operating Temperature	-20~50°C (-4°F ~ 122°F) w/WT SSD, ambient w/ 0.5m/s air flow
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Storage Temperature	-40°C ~ 75°C (-40 ~ 167°F)
Operating Humidity	40°C @ 95% Relative Humidity, Non-condensing
Dimension (W x L x H)	217 mm x 115 mm x 220 mm
Weight	2.6 kg (System) 3.4 kg (w/ Package)
Vibration Test	With SSD : 1.5 Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 1hr/axis
Shock Test	With SSD : 10Grms, IEC 60068-2-27, Half Sine, 11ms
Drop	Complied with ISTA 2A
Software Support	
OS Information	Win 10 64bit Linux