

MS-9B05

Flexible Expansion Box PC with Intel® Whiskey Lake ULT, 3 display outputs & Easy Maintenance for Digital Signage & Automation

NEW



TAIWAN
EXCELLENCE 2019

MS-9B05-L1



29mm Thickness

Slim and Fanless design

MS-9B05-L2



MS-9B05-L3



Features

- Intel® Whiskey Lake Mobile ULT series, low power solution, TDP 15W
- Supports 3 independent displays including 1 x HDMI2.0 for 4K display at 60 FPS
- DC input: 12V or wide voltage 9-36V
- Supports S/PDIF for 5.1 surround sound output TPM 2.0 on board by bom option
- Expansion Slot:
Mini-PCIe slots for SSD and 3G/4G module
M.2 slot for SSD & WiFi/BT module
- Easy Maintenance:
Only 2 screws to fix/remove bottom cover within 6 secs
- Quick Assembly for 2 x Memory, 2 x Mini-PCIe, 2 x M.2, 1 x 2.5" HDD/SSD, SIM Card Slot (all on bottom side)
- 4 openings reserved for antennas

Ordering Information

Part Number	Description
Coming soon	

Packing List

Part Number	Description
Coming soon	

Specifications

		MS-9B05-L1	MS-9B05-L2	MS-9B05-L3
Processor	CPU	8th Gen Intel® Mobile Whiskey Lake-U Core™ i7/i5/i3/ Celeron® Processor, DC, 15W		
	Frequency	Depends on CPU		
	L2 Cache	Depends on CPU		
	CPU Type	BGA		
	Chipset	Integrated		
Memory	BIOS	AMI		
	Technology	Dual-channel for DDR4 2400 MHz		
	Max. Capacity	Up to 32GB		
Graphic	Socket	2 x 260-pin SO-DIMMs		
	Controller	Intel® UHD Graphics 620		
	Graphic Memory	Shared system memory up to 1.7 GB SDRAM		
	Multiple Display	3 independent displays		
Display Interface	HDMI2.0 up to	4096 x 2160 @60Hz		
	HDMI1.4 up to	4096 x 2160 @24Hz		
	DP1.2 up to	4096 x 2304 @60Hz		
Ethernet	DVI-D up to	1920 x 1200 @60Hz		
	Controller	1 x Intel® I219LM GbE LAN PHY 1 x Intel® I210-AT GbE LAN*		
Audio	Controller	Realtek® ALC887-VD2-CG HD Audio Codec		
H/W Monitor	Watchdog Timer	256-level Watchdog Timer		
	Smart Fan	N/A		Yes (by request)
TPM	Controller	Pin Header or Infineon SLB9665TT2.0 (optional)		
	PCIe x 4	N/A		Yes
Storage	M.2	1 x E Key (2x PCIe x1, USB 2.0), 2230 1 x M Key (PCIe x4, SATA), 2242		
	Mini-PCIe	1 x Half/Full-size (w/ mSATA) 1 x Half/Full-size (w/ Nano-SIM holder)		
	SATA	1 x 2.5" HDD/SSD		
	mSATA	1 x Full-size (shared with mini-PCIe)		
I/O Interface	RJ-45	2	4 (LAN1/2 Standard, LAN3/4 by request)	
	PoE	N/A	2 x 802.3af (by request)	
	Audio	1 x SPDIF-out/Line-out 1 x Mic-in/Line-in		
	USB	4 x USB 2.0, Type A 4 x USB 3.1 Gen2, Type A 1 x USB 3.1 Gen2, Type C supports 5V/3A	6 x USB 2.0, Type A 4 x USB 3.1 Gen2, Type A 1 x USB 3.1 Gen2, Type C supports 5V/3A	
	Serial	2 x COM ports COM1/2: RS-232/422/485, 0V/5V/12V COM3/4: RS-232, w/o power	4 x COM ports COM1/2: RS-232/422/485, 0V/5V/12V COM3/4: RS-232, w/o power	
	GPIO	N/A	8-bits (4 x GPI, 4 x GPO), 5V	
	CANbus	N/A	2 (by request)	
	HDMI	3 (2 Co-lay with DP)		
	DVI	1 (DVI-D, signal share with HDMI3)		
	DisplayPort	2 (colay with HDMI)		
	VGA	N/A		
	Antenna	4 openings reserved for antennas		
Power Supply	DC Input	DC-in 12V or 9~36V with Lockable DC Jack	DC-in 12V or 9~36V with Lockable DC Jack or Phoenix plug or mini-DIN 4-PIN	
	IP Rating	Full IP40		
Environment	Operating Temperature	-10 ~ 50°C (SSD) -10 ~ 40°C (HDD)		
	Operating Humidity	10 ~ 90%, non-condensing		
	Storage Temperature	-20 ~ 80°C		
	Storage Humidity	10 ~ 90%, non-condensing		
	Vibration	Operating: IEC 60068-2-64: 2 Grms, 5 ~ 500 Hz, 1hr/axis (w/ SSD)		
	Shock	Operating: IEC 60068-2-27: 50G, half sine, 11ms (w/ SSD)		
Form Factor	Dimensions (W x D x H)	260 x 185 x 29mm	260 x 185 x 53mm	260 x 185 x 136mm
	Weight	1.77 kg	2.11 kg	2.65 kg
	Mounting	VESA/DIN Rail(STD), Wall mount(by BOM option)		Wall mount
Certification	EMC	FCC, CE, RCM, VCCI, BSMI Class B		
	Safety	BSMI		
Software Platform	OS Support	Windows 10 (64-bit) Linux Ubuntu /Linux Fedora (by request)		

