

DS-086

Intel METEOR LAKE U & H High Performance AI PC Box for Display Solution



Features

- Powered by Intel® Core™ Ultra 5 / Ultra 7 processors
- HDMI 2.1 supports up to 8K@60Hz / 4K@60Hz output
- Dual-channel DDR5 memory with smart fan thermal design
- Dual 2.5GbE LAN, RS-232, and multiple USB ports
- AI acceleration supported by 11 TOPS NPU, compatible with major AI frameworks
- Support iVisionSuite
- TPM 2.0 supported: Firmware TPM (fTPM) by default; discrete TPM available as an optional BOM item upon project request
- Intel® vPro® platform for enterprise-grade security, high performance, and remote manageability

WISE-PaaS/SignageCMS WISE-DeviceOn

Introduction

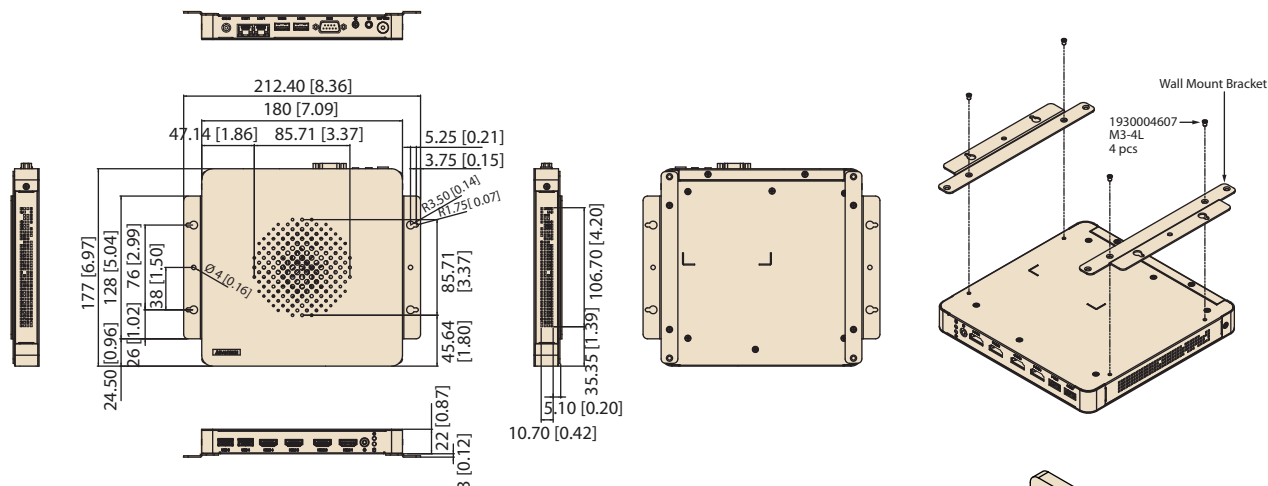
DS-086 is a TV wall signage player that is suitable for AI or Intercalative and signage applications. Equipped with Smart Fan & thin design. It is able to be installed in narrow spaces for 24/7 hours operation in public space. Intel Vpro for IT remote control or Hardware EDID for TV Wall application, are in different sku for filed demands.

Specifications

		DS-086GB-U0A1E	DS-086GB-U1A1E	DS-086GB-U2A1E	DS-086GB-U3A1E
Processor	Chipset	Intel® Core™ Ultra 5, 135U (Vpro version)	Intel® Core™ Ultra 5, 125H	Intel® Core™ Ultra 5, 125U	Intel® Core™ Ultra 5, 135H (Vpro version)
	BIOS	AMI uEFI 256 Mbit			
Memory	Technology	DDR5 4800/5600Mhz Support			
	Max. Capacity	48GB (24GB per SO-DIMM)			
	Socket	2 x SO-DIMM			
CPU TDP		15W	28W	15W	28W
Thermal Solution		PWM control by Smart Fan			
NPU	AI Engine	Intel® AI Boost, 11 TOPs			
Display	Graphics Engine	Intel® Graphics	Intel® Arc™ graphics	Intel® Graphics	Intel® Arc™ graphics
	HDMI Ports	4 x 4K60 (HDMI 2.1 TMDS)			
	HDMI Port1 Note	1 x 8K60 (up to HDMI 2.1 FRL). EDID coexistence is not supported			
	CEC	HDMI-CEC			
Ethernet	Controller	i226V+i226LM	i226LM	i226LM	i226V+i226LM
	Interface	2.5 Gigabit LAN Controller			
	Connector	2 x RJ45 (Vpro @ LAN1)	1 x RJ45	2 x RJ45	2 x RJ45 (Vpro @ LAN1)
I/O Interfaces	Audio	1 x (Line-Out or Mic-In)			
	USB	2 x USB 3.2 Gen1, 2 x USB 2.0			
	Serial Port (RS-232)	1 X RS232 (Tx, Rx)			
	LED Indicators	1 x Power, 1 x SSD Access			
	IR Phone Jack	1 x IR (Reserve for OEM Demand)	--	1 x IR (Reserve for OEM Demand)	1 x IR (Reserve for OEM Demand)
	EDID_CLR	--	--	1 x EDID_CLR	--
Expansion	M.2	2242 M-Key (PCIex4) 2230 E Key (PCIe & USB2.0), Limited PN to support Wireless Ant Connector			
Power Requirement	Input Voltage	19 V DC-in (ATX/AT mode)			
Watchdog Timer	Output	Interrupt, system reset			
	Interval	255-level timer interval, setup by software			
Trusted Platform Module	TPM2.0	fTPM (default), dTPM by Project Support			
Physical Characteristics	Mounting	Wall Mount			
	Dimensions (W x D x H)	177 x 180 x 22 mm			
	Weight	0.9 kg			
Environment	Operating Temperature	0~40°C (without air flow)			
	Storage Temperature	-20 ~ 85°C (-4~140°F)			
	Relative Humidity	95% @ 40 °C (non-condensing), operating			
Operating System	Operating System	Win10 LTSC X64, Win11 LTSC X64			
	Linux	supported by project			
Certifications	EMC	CE/FCC Class B, BSMI, UKCA			
	Safety	UL, CB, BSMI			

Dimensions

Unit: mm [inch]

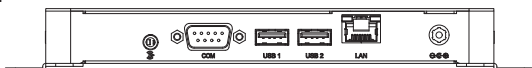


Wall Mount

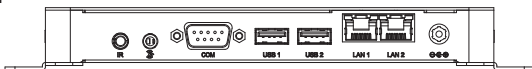
VESA Mount

Front View

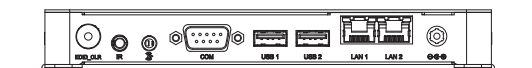
1 LAN



2 LAN



2 LAN w/ EDID



1 LAN w/ Ant. Hole



2 LAN w/ Ant. Hole



Rear View



Ordering Information

Part No.	CPU	Processor Series	HDMI (CEC)	USB	RJ-45	RS-232	Audio	EDID	IR	M.2	Ant Hole	Power Input	Operating Temp.	Origin
DS-086GB-U0A1E	135U	Intel® Core™ Ultra 5	4	4	2	1	1	NA	1	2	NA	19V	0–40°C	China
DS-086GB-U0A1U	135U	Intel® Core™ Ultra 5	4	4	2	1	1	NA	1	2	NA	19V	0–40°C	Taiwan
DS-086GB-U0A2E	135U	Intel® Core™ Ultra 5	4	4	2	1	1	NA	1	2	Yes	19V	0–40°C	China
DS-086GB-U0A2U	135U	Intel® Core™ Ultra 5	4	4	2	1	1	NA	1	2	Yes	19V	0–40°C	Taiwan
DS-086GB-U1A1E	125H	Intel® Core™ Ultra 5	4	4	1	1	1	NA	0	2	NA	19V	0–40°C	China
DS-086GB-U1A1U	125H	Intel® Core™ Ultra 5	4	4	1	1	1	NA	0	2	NA	19V	0–40°C	Taiwan
DS-086GB-U1A2E	125H	Intel® Core™ Ultra 5	4	4	1	1	1	NA	0	2	Yes	19V	0–40°C	China
DS-086GB-U1A2U	125H	Intel® Core™ Ultra 5	4	4	1	1	1	NA	0	2	Yes	19V	0–40°C	Taiwan
DS-086GB-U1A3E	125H	Intel® Core™ Ultra 5	4	4	2	1	1	Yes	1	2	NA	19V	0–40°C	China
DS-086GB-U1A3U	125H	Intel® Core™ Ultra 5	4	4	2	1	1	Yes	1	2	NA	19V	0–40°C	Taiwan
DS-086GB-U1A4E	125H	Intel® Core™ Ultra 5	4	4	2	1	1	NA	1	2	NA	19V	0–40°C	China
DS-086GB-U1A4U	125H	Intel® Core™ Ultra 5	4	4	2	1	1	NA	1	2	NA	19V	0–40°C	Taiwan
DS-086GB-U2A1E	125U	Intel® Core™ Ultra 5	4	4	2	1	1	Yes	1	2	NA	19V	0–40°C	China
DS-086GB-U2A1U	125U	Intel® Core™ Ultra 5	4	4	2	1	1	Yes	1	2	NA	19V	0–40°C	Taiwan
DS-086GB-U3A1E	135H	Intel® Core™ Ultra 5	4	4	2	1	1	NA	1	2	NA	19V	0–40°C	China
DS-086GB-U3A1U	135H	Intel® Core™ Ultra 5	4	4	2	1	1	NA	1	2	NA	19V	0–40°C	Taiwan
DS-086GB-U3A3E	135H	Intel® Core™ Ultra 5	4	4	2	1	1	Yes	1	2	NA	19V	0–40°C	China
DS-086GB-U3A3U	135H	Intel® Core™ Ultra 5	4	4	2	1	1	Yes	1	2	NA	19V	0–40°C	Taiwan
DS-086GB-U6A1E	155U	Intel® Core™ Ultra 7	4	4	2	1	1	Yes	1	2	Yes	19V	0–40°C	China
DS-086GB-U6A1U	155U	Intel® Core™ Ultra 7	4	4	2	1	1	Yes	1	2	Yes	19V	0–40°C	Taiwan
DS-086GB-U6A3E	155U	Intel® Core™ Ultra 7	4	4	2	1	1	NA	1	2	NA	19V	0–40°C	China
DS-086GB-U6A3U	155U	Intel® Core™ Ultra 7	4	4	2	1	1	NA	1	2	NA	19V	0–40°C	Taiwan

Packing List

Part Number	Description
	1 x DS-086
1960057740T002	2 x Wall Mount brackets and screws
96PSA-A65W19V1-3	1x 19V power adapter
1990012452S000	4x Rubber Foot and screws

Optional Accessory

Part Number	Description
196005699T301	VESA Mount BKT

Storage and DRAM

Part Number	Description
SQF-C4MV2-128GDEDM	PCIe/NVMe M.2 2242 128G
SQF-C4MV2-256GDEDM	PCIe/NVMe M.2 2242 256G
SQF-C4MV2-512GDEDM	PCIe/NVMe M.2 2242 512G
SQR-SD5N8G5K6HNGAG	SODIMM DDR5 5600 8GB 1Gx16 (0-95 °C) Hynix
SQR-SD5N16G5K6HNGAG	SODIMM DDR5 5600 16GB 2Gx8 (0-95 °C) Hynix
SMI-SD5V8GN56-CC	Semi Ind D5 SO DIMM 5600 8GB 1Gx16 0–85 °C
SMI-SD5V16GN56-CB	Semi Ind D5 SO DIMM 5600 16GB 1Gx8 0–85 °C

Power Cord

Part Number	Description
1700001524	3-pin power cord (US)
170203183C	3-pin power cord (EU)
170203180A-01	3-pin power cord (UK)
1700008921	3-pin power cord with PSE (Japan)
1700019146	3-pin power cord (CCC)
1700018553	3-pin power cord (AU)
1700024849-01	3-pin power cord (TW)

Embedded OS

Part Number	Description
20706WLV1S0072	Win11 2024 LTSC value for Ultra-5
20706WX1VS0135	Win10 2021 LTSC value for Ultra-5
20706U24DS0060	UbuntuD DS-086 64b 24.04 ENU

Optional Modules / Expansion Support

Part Number	Description
AIW-170BQ 1751000654-01 1751000412-01 AIW-512 x2	WCN6856/QCA2066 Wi-Fi 6E M.2 Key E solution, cable and antenna by project support
EWM-W179M201E 1751000654-01 1751000412-01 AIW-512 x2	IEEE 802.11 ax (2.4GHz+5GHz) + BT5.2, 2T2R, M.2 Key E solution, cable and antenna by project support

Note: All modules are certified; system-level certification depends on project integration