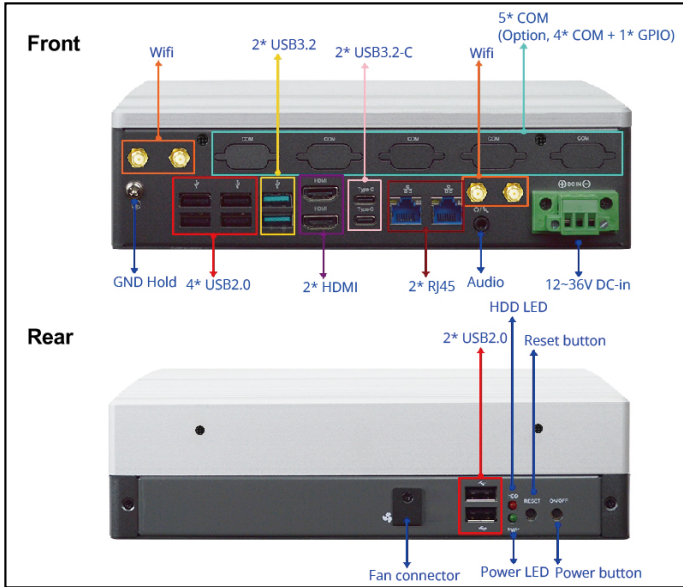


Fanless Embedded System featuring Intel® 13th Gen Core™ i5-1335U Processor supports DC-in 12~36V



Features

- **Efficient Performance:** Powered by Intel® Processor i5-1335U (Raptor Lake-P) with 15W TDP.
- **Quad Display Support:** Dual HDMI and Dual DP for 4K Resolution.
- **Advanced Memory:** Supports up to 64GB DDR5 via 2 SO-DIMM slots.
- **High-Speed Networking:** Dual 2.5GbE Ports for Fast, Stable Connections
- **Comprehensive I/O:** 4 USB 3.2 Gen2, 6 USB 2.0, and 5 COM Ports for Versatile Connectivity
- **Flexible Storage & Expansion:** 2 M.2 M-key, 1 M.2 E-key, 1 M.2 B-key, and 1 SIM card slot for enhanced expansion.
- **Security Ready:** Optional TPM 2.0 for added security.
- **Wide Power Support:** Wide DC input range (12-36V) for diverse installation environments.

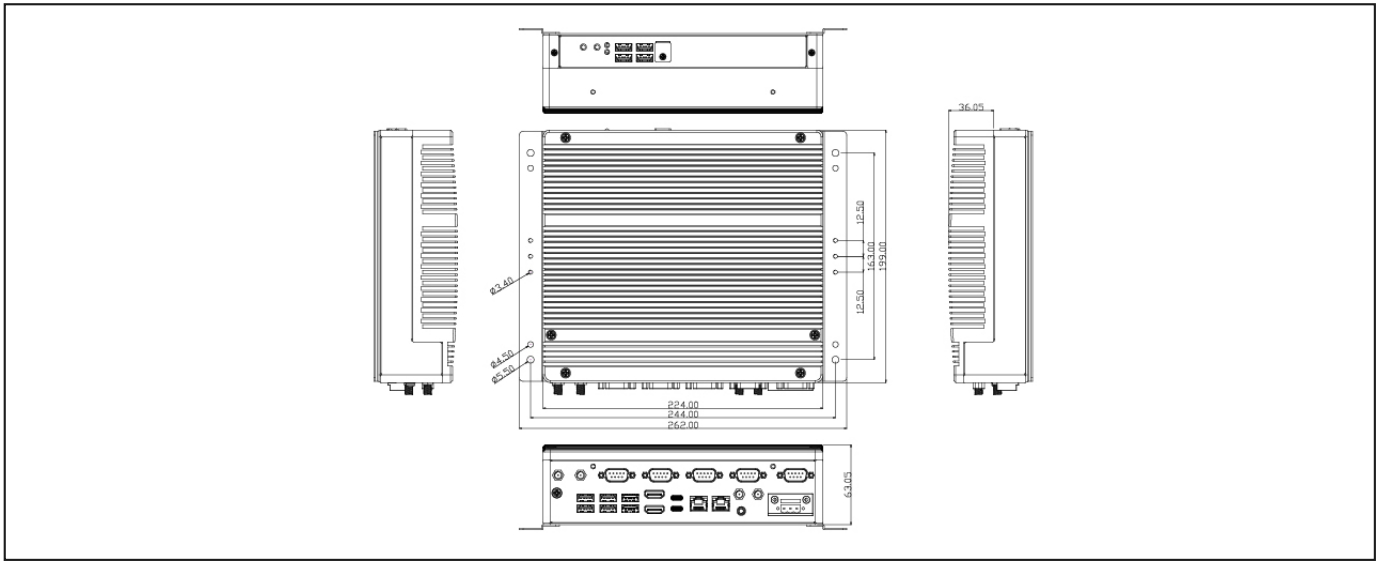
Packing List

PART NUMBER	DESCRIPTION	QTY
HB650I24 Series	HB650I24 Series	1
-	WALL MOUNT KITS	1
L01AS056-F	Adapter DC19V_120W	1
Change according to shipping area	Power Cord	1
LCSCHBFDXXX-F	Screw Pack	1
LCSCHBJC3XX-F	Screw Pack	1
HCS3XXDINRAILPS-F	DIN RAIL CLIP	2
J05-ANT-GX57245-F	Antenna 2G4/5G 2.8dBi (WiFi model only)	2
HCFA65X-DC1225	DC1225 FAN Expansion module (option)	1

Specifications

SYSTEM	
MB FORM FACTOR	Mini-ITX
CPU	Onboard Intel® 13th Gen Core™ i5-1335U (Formerly Raptor Lake-P, TDP 15W) Onboard Intel® 13th Gen Core™ i5-1335UE (Formerly Raptor Lake-P, TDP 15W)
MEMORY	2 x DDR5 4800MHz, Dual Channel SO-DIMM, up to 64GB
BIOS	AMI Flash ROM
SECURITY	TPM2.0 (Optional)
OS SUPPORT	Windows® 11 (64bit) Linux
POWER	
POWER REQUIREMENT	DC-in 12~36V 120W Adapter: AC90~240V, DC19V/6.32A
DISPLAY	
GPU	Intel® Iris® Xe Graphics
Type C DP	2 x Type C DP1.4a (Max. Resolution: 4096 x 2304@60Hz)
HDMI	2 x HDMI 2.0b (Max Resolution: 4096 x 2160@60Hz)
MULTIPLE DISPLAY	Support 4 Displays
AUDIO	
CODEC	Realtek Audio Codec
AMPLIFIER	3W
LAN	
ETHERNET	1 x RJ45 for Intel® I226-LM 2.5GbE 1 x RJ45 for Intel® I226-V 2.5GbE
SYSTEM I/O	
REAR PANEL I/O	2 x RJ45 2 x USB 3.2 Gen 2 2 x USB3.2 Gen.2 Type-C support DP ALT mode & PD 5V/3A 4 x USB 2.0 2 x HDMI 1 x Audio (Line out, MIC Combo) 1 x DC-in 2 x RS-232/422/485 (Optional) 3 x RS-232 (Optional) 4 x Antenna Holes
FRONT PANEL I/O	1 x Power Button 1 x Reset Button 1 x Power LED 1 x HDD LED 2 x USB 2.0 1 x FAN Expansion con
EXPANSION	
M.2	1 x M-Key 2242/2280 (PCIe 4.0 x4) Support NVMe 1 x M-Key 2242 (SATA) 1 x E-Key 2230 (USB 2.0/PCIe x1) Support CNVio for Wi-Fi 1 x B-key 3042/3052 (USB3.1/USB2.0/PCIe x1) for 4G/5G module
SIM	1 x SIM Card Slot
MECHANICAL	
MOUNTING	Wall Mount, DIN Rail Clip
DIMENSIONS (W x D x H)	224.0 (W) x 199.0 (D) x 63.0 (H) mm
GROSS WEIGHT	5 kg
NET WEIGHT	4 kg
ENVIRONMENT & CERTIFICATION	
SHOCK	15G, 11ms duration
VIBRATION	1 Grms/ 5- 500Hz/ Operation
OPERATING TEMPERATURE	-20°C ~ 60°C (-4°F ~ 140°F)
STORAGE TEMPERATURE	-40°C ~ 85°C (-40°F ~ 185°F)
OPERATING HUMIDITY	10 ~ 95% @ 40°C, Non-condensing
CERTIFICATION	CE/FCC Class A LVD
ESG DECLARATION	EU RoHS China RoHS ErP

Dimension Unit: mm



Ordering Information

PART NUMBER	HB650I24-1335U-A1	HB650I24I-1335U-A1	HB650I24-1335UE-A1	HB650I24I-1335UE-A1
CPU	Intel® Core™ i5-1335U	Intel® Core™ i5-1335U	Intel® Core™ i5-1335UE	Intel® Core™ i5-1335UE
POWER REQUIREMENT	DC-in 12-36V	DC-in 12-36V	DC-in 12-36V	DC-in 12-36V
GPU	Intel® Iris® Xe Graphics	Intel® Iris® Xe Graphics	Intel® Iris® Xe Graphics	Intel® Iris® Xe Graphics
TYPE C DP	2 x Type C DP	2 x Type C DP	2 x Type C DP	2 x Type C DP
HDMI	2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI
MULTIPLE DISPLAY	Support 4 Displays	Support 4 Displays	Support 4 Displays	Support 4 Displays
ETHERNET	2 x 2.5GbE	2 x 2.5GbE	2 x 2.5GbE	2 x 2.5GbE
I/O	2 x RJ45	2 x RJ45	2 x RJ45	2 x RJ45
I/O	2 x USB 3.2 Gen 2	2 x USB 3.2 Gen 2	2 x USB 3.2 Gen 2	2 x USB 3.2 Gen 2
I/O	2 x USB 3.2 Gen 2 Type C support DP ALT mode	2 x USB 3.2 Gen 2 Type C support DP ALT mode	2 x USB 3.2 Gen 2 Type C support DP ALT mode	2 x USB 3.2 Gen 2 Type C support DP ALT mode
I/O	4 x USB 2.0	4 x USB 2.0	4 x USB 2.0	4 x USB 2.0
I/O	2 x HDMI	2 x HDMI	2 x HDMI	2 x HDMI
I/O	1 x Audio (Line-out, MIC Combo)	1 x Audio (Line-out, MIC Combo)	1 x Audio (Line-out, MIC Combo)	1 x Audio (Line-out, MIC Combo)
I/O	1 x DC Jack	1 x DC Jack	1 x DC Jack	1 x DC Jack
I/O	5 x COM (Optional)	5 x COM (Optional)	5 x COM (Optional)	5 x COM (Optional)
I/O	1 x Power Button	1 x Power Button	1 x Power Button	1 x Power Button
I/O	1 x Reset	1 x Reset	1 x Reset	1 x Reset
I/O	1 x Power LED	1 x Power LED	1 x Power LED	1 x Power LED
I/O	1 x HDD LED	1 x HDD LED	1 x HDD LED	1 x HDD LED
I/O	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0
I/O	1 x FAN Expansion con	1 x FAN Expansion con	1 x FAN Expansion con	1 x FAN Expansion con
I/O	1 x FAN Expansion con	1 x FAN Expansion con	1 x FAN Expansion con	1 x FAN Expansion con
M.2	1 x M-Key 2242/2280	1 x M-Key 2242/2280	1 x M-Key 2242/2280	1 x M-Key 2242/2280
M.2	1 x M-Key 2280	1 x M-Key 2280	1 x M-Key 2280	1 x M-Key 2280
M.2	1 x E-Key 2230	1 x E-Key 2230	1 x E-Key 2230	1 x E-Key 2230
M.2	1 x B-Key 3042/3052	1 x B-Key 3042/3052	1 x B-Key 3042/3052	1 x B-Key 3042/3052
OTHER		Wifi		Wifi
OPERATING TEMPERATURE	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)