3.5" Single Board Computer

IB301

AMD Ryzen™ Embedded 8000 Series

NEW

SATA Power
M.2 @2230 (E-Key)
M.2 @2280 (M-Key)
eDP
SIM Slot
2x DDR5 SO-DIMM
M.2 @3052 (B-Key)

Display Port 2.1
USB 3.2
COM Port
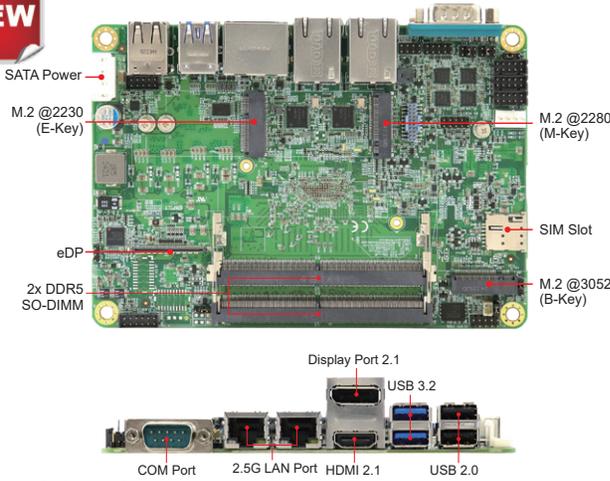2.5G LAN Port
HDMI 2.1
USB 2.0

AMD Ryzen Embedded 8000

Features

- AMD Ryzen™ Embedded 8000 Series APU on board, up to 8 cores/16 threads
- Dual-channel SO-DIMM, DDR5 5600, Max. 128GB (per DIMM), Total capacity: 256GB
- 1x eDP, 1x LVDS, 1x DP 2.1, 1x HDMI 2.1
- 2x Intel® I226-V 2.5 Gigabit LAN, 2x USB3.2, 4x USB 2.0
- 1x M.2 B-Key for 5G or LTE options
- 1x M.2 E-Key for Wi-Fi, Bluetooth or capture card options
- supports 2x RS232/422/485 COM port, 2x RS232 COM port

Specifications

CPU	AMD Ryzen™ Embedded 8000 series APU
PCH	N/A
Memory	Dual-Channel SO-DIMM, DDR5 5600, Max. 128GB (per DIMM), Total capacity: 256GB
BIOS	AMI
Watchdog Timer	256 levels
H/W Monitor	Yes
Storage Device Interface	1x PIC-E Gen4 x4 (M.2 NVMe) M-Key Type 2280
Mini Type Slots	1x M.2 (E-Key, Type:2230, supports CNVi) 1x M.2 (B-Key, Type:3052, supports 5G/LTE) 1x SIM socket (Nano SIM)
Graphics Controller	RDNA3 graphics with up to 6 WGPs (Work Group processors)
Video Output	1x DP 2.1, max resolution: 8K@60Hz (Up to DP 2.1 / UHBR10 (10Gbps)) 1x HDMI 2.1, max resolution: 4K@120Hz 10bpc, 8K60A 10bpc (4:2:0) (Up to HDMI 2.1 FRL and 10G with Re-driver (Windows) / 2.0b (Linux)) 1x eDP 1.5 [original eDP, DP0], max resolution: 4K@60Hz 1x LVDS [original DP, DP1]max resolution: Dual-Channel 18/24bit, up to 1920x1080 @ 60Hz
Ethernet	2x Intel® I226-V 2.5 Gigabit LAN
I/O Chipset	Fintek F81956D-I
Serial Port	2x RS232/422/485 COM port (configurable) 2x RS232 COM port
USB 2.0	4x USB 2.0 (2 for Type-A, 2 for Pin Header)
USB 3.X	2x USB 3.2 Gen2 (10Gbps)
Serial ATA	N/A
Audio	Realtek audio codec ALC888S-VD2-GR audio header x1 (for Line-in/Line-out/MIC)
TPM	fTPM as default (dTPM option: SLB9672)
Others	Digital I/O(4-in/ 4-out)
Dimensions (L x W)	102 mm x 147 mm (4" x 5.7")
Power Consumption	TBD
Operating Temperature	0°C~60°C (32°F~140°F)
Storage Temperature	-20°C~80°C (-4°F~176°F)
Relative Humidity	90% (non-condensing@60°C)

Ordering Information

IB301-8845	3.5" AMD Ryzen™ Embedded 8000 series (Hawk Point 8845HS, CPU Freq. 3.8 GHz up to 5.1 GHz, 8 Cores, 16 Threads, TDP 35-54W) /3.5" SBC, 2x I226-V, 2x USB 3.2, 4x USB 2.0, 4x COM, 12V – 24V DC-in, w/ LVDS
IB301-E-8845	3.5" AMD Ryzen™ Embedded 8000 series (Hawk Point 8845HS, CPU Freq. 3.8 GHz up to 5.1 GHz, 8 Cores, 16 Threads, TDP 35-54W) /3.5" SBC, 2x I226-V, 2x USB 3.2, 4x USB 2.0, 4x COM, 12V – 24V DC-in, w/ eDP
IB301-8840	3.5" AMD Ryzen™ Embedded 8000 series (Hawk Point 8840U, CPU Freq. 3.3 GHz up to 5.1 GHz, 8 Cores, 16 Threads, TDP 15-30W) /3.5" SBC, 2x I226-V, 2x USB 3.2, 4x USB 2.0, 4x COM, 12V – 24V DC-in, w/ LVDS
IB301-E-8840	3.5" AMD Ryzen™ Embedded 8000 series (Hawk Point 8840U, CPU Freq. 3.3 GHz up to 5.1 GHz, 8 Cores, 16 Threads, TDP 15-30W) /3.5" SBC, 2x I226-V, 2x USB 3.2, 4x USB 2.0, 4x COM, 12V – 24V DC-in, w/ eDP
IB301-8645	3.5" AMD Ryzen™ Embedded 8000 series (Hawk Point 8645HS, CPU Freq. 4.3 GHz up to 5.0 GHz, 6 Cores, 12 Threads, TDP 35-54W) /3.5" SBC, 2x I226-V, 2x USB 3.2, 4x USB 2.0, 4x COM, 12V – 24V DC-in, w/ LVDS
IB301-E-8645	3.5" AMD Ryzen™ Embedded 8000 series (Hawk Point 8645HS, CPU Freq. 4.3 GHz up to 5.0 GHz, 6 Cores, 12 Threads, TDP 35-54W) /3.5" SBC, 2x I226-V, 2x USB 3.2, 4x USB 2.0, 4x COM, 12V – 24V DC-in, w/ eDP
IB301-8640	3.5" AMD Ryzen™ Embedded 8000 series (Hawk Point 8640U, CPU Freq. 3.5 GHz up to 4.9 GHz, 6 Cores, 12 Threads, TDP 15-30W) /3.5" SBC, 2x I226-V, 2x USB 3.2, 4x USB 2.0, 4x COM, 12V – 24V DC-in, w/ LVDS
IB301-E-8640	3.5" AMD Ryzen™ Embedded 8000 series (Hawk Point 8640U, CPU Freq. 3.5 GHz up to 4.9 GHz, 6 Cores, 12 Threads, TDP 15-30W) /3.5" SBC, 2x I226-V, 2x USB 3.2, 4x USB 2.0, 4x COM, 12V – 24V DC-in, w/ eDP
HSIB301-B	COOLER; HSIB301-B V-A, H052HSIB301B0000AP
PW595	Power CABLE; PW595 2-HD 4C Length 22cm, C501PW59504222000P

*Specifications are subject to change without prior notice

Dimensions and Drawings

102.24
97.23
66.68
47.62
0 5
25
43.94
52.5
70.9
90.9
94.74
110.1
126.85
142.01
147.01

25.25
14.35
10.52
0
16.34
16.16

iBASE