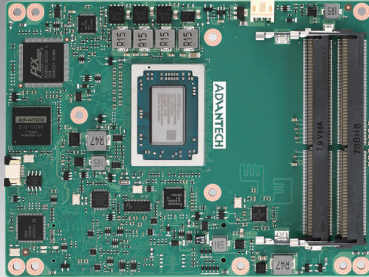


SOM-5871

AMD Embedded V-Series V1000 COM Express Basic Module Type 6

Preliminary



Windows Embedded

WISE-PaaS/RMM iManager CE FC

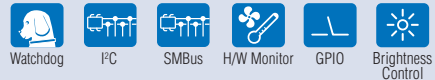
Specifications

Form Factor	Form Factor	COM Express Basic Module				
	Pin-out Type	COM Express R3.0 Type 6 pin out				
Processor System	CPU	V1807B	V1756B	V1605B	V1202B	V1404I
	Base Frequency	3.35GHz	3.25GHz	2GHz	2.3GHz	TBD
	1T Boost Frequency	3.8GHz	3.6GHz	3.6GHz	3.6GHz	TBD
	Core/Thread	4/8	4/8	4/8	2/4	4/4
	LLC	2M	2M	2M	1M	2M
	CPU TDP	35-54W	35-54W	12-25W	12-25W	15W
Memory	Technology	2400/3200 MT/s				
	ECC Support	Yes				
	Max. Capacity	32GB				
	Socket	2 SO-DIMM(dual channel)				
Graphics	Controller	Vega GPU with up to 11 Compute Units				
	GPU Frequency	1.3GHz	1.3GHz	1.1GHz	1.0GHz	TBD
	Graphic Memory	TBD				
	3D/HW Acceleration	H.265 Decode & Encode, VP9 Decode DirectX® 12/EGL 1.4/OpenCL™ 2.1/OpenCL® ES 1.1, 2.x, and 3.x OpenGL® Next/OpenCL® 4.6				
Display	VGA	1 port up to 1920 x 1200 @ 60 Hz				
	LCD	LVDS dual channel 18/24-bit LVDS, up to 1920 x 1200 @ 60 Hz option support eDP1.4, up to 4096 x 2304 @ 60Hz, 24bpp				
	DDI	2 Port configurable to HDMI1.4/DVI/DisplayPort1.4 HDMI up to 4096 x 2160 @ 30Hz, DVI up to 1920 x 1200 @ 60Hz, DisplayPort up to 3840 x 2160 @ 120Hz				
	Multiple Display	Quad display with each display combinations				
Expansion	PCI Express x1	6 PCIe1 x1 via PCIe Bridge				
	Audio Interface (*For COMe)	HD Audio Interface				
	LPC	Yes				
Serial Bus	SMBus	Yes (default - signal is from SoC; optional- signal is from EC)				
	I²C Bus	Yes (default - signal is from SoC; optional- signal is from EC)				
	CAN Bus	Yes (Optional, co-layout with COM2)				
Ethernet	Controller	Intel I210 AT/Intel I210 IT				
	Speed	10/100/1000 Mbps				
I/O	SATA	2 SATAIII 6.0Gb/s				
	USB3.0	3 Ports				
	USB2.0	8 Ports (Optional 6 ports w/o hub)				
	SPI Bus	Yes				
	GPIO	8-bit				
	Watchdog	65536 level, 0-65535 sec				
	COM Port	2 Ports (2-wire)				
	TPM	TPM2.0				
	Smart Fan	2 Ports; 1 port on COM module. Support 12V Fan, 1 port on carrier board				
Power	Type	ATX: Vin, VSB; AT: Vin				
	Supply Voltage	Vin: 8.5V (9V-5%) - 20V (19+5%); VSB: 5 +/-5%, RTC Battery: 2.0-3.3V				
	Power Consumption	TBD				
Environment	Temperature	Operating Standard: 0 - 60 °C (32 - 140 °F), Extend: -40 - 85 °C (-40 - 185 °F) Storage: -40 - 85 °C (-40 - 185 °F)				
	Humidity	Operating: 40 °C @ 95% relative humidity, non-condensing Storage: 60 °C @ 95%relative humidity, non-condensing				
	Vibration Resistance	3.5 Grms				
Mechanical	Dimensions	125 x 95 mm (4.92" x 3.74")				

Features

- COM R3.0 Type 6 Basic Module
- AMD Embedded V-Series V1000
- Dual channel DDR4, Max 32GB (Both ECC & Non-ECC)
- Supports Quad independent symmetrical displays
- Supports up to 4 4K displays
- Rich IO Interfaces-2 SATA, 3 USB3.0, 8 USB 2.0, 2 COM, TPM, CAN Bus (Optional)
- Supports iManager, WISE-PaaS/RMM and Embedded Software APIs

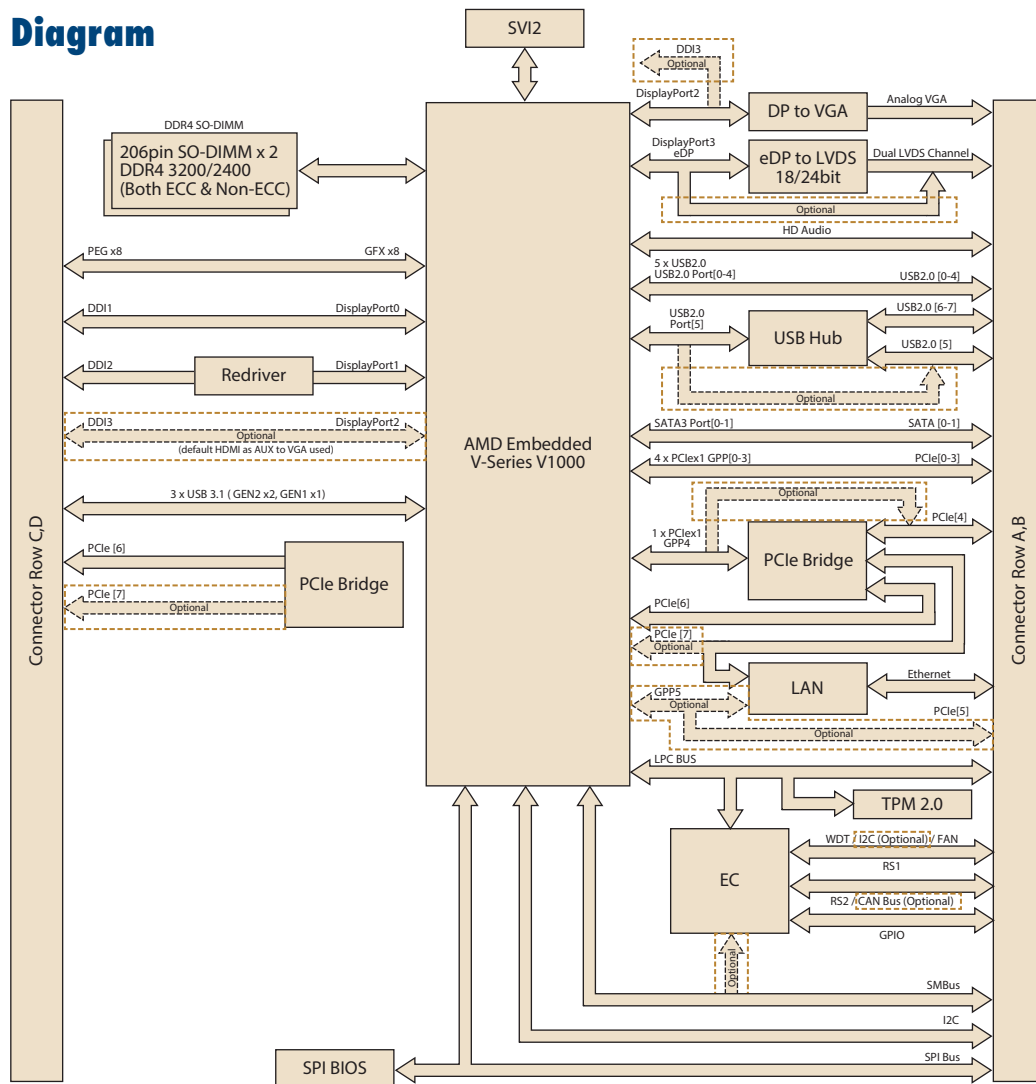
Software APIs:



Utilities:



Block Diagram



Ordering Information

Part No.	SoC	Base/1T Boost Freq.	Core/Thread	LLC	CPU TDP	Thermal Solution	Operating Temperature
SOM-5871VC-H3A1	V1807B	3.35GHz/3.8GHz	4/8	2M	35-54W	TBD	0 ~ 60° C
SOM-5871VC-H2A1	V1756B	3.25GHz/3.6GHz	4/8	2M	35-54W	TBD	0 ~ 60° C
SOM-5871VC-U0A1	V1605B	2GHz/3.6GHz	4/8	2M	12-25W	TBD	0 ~ 60° C
SOM-5871VC-U3A1	V1202B	2.3GHz/3.2GHz	2/4	1M	12-25W	TBD	0 ~ 60° C

Packing List

Part No.	Description	Quantity
-	SOM-5871 CPU Module	1
TBD	Heatspreader	1

Optional Accessories

Part No.	Description
TBD	
TBD	

Development Board

Part No.	Description
TBD	COMe Devel. Board COMe R3.0 Type6 pint-out (SOM-DB5830)