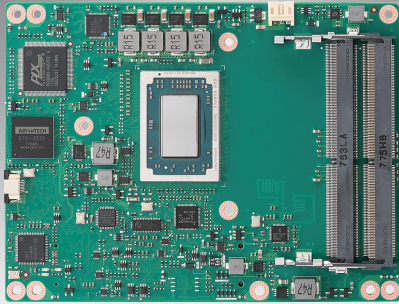


SOM-5871

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

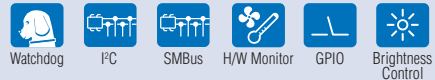
Preliminary



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:



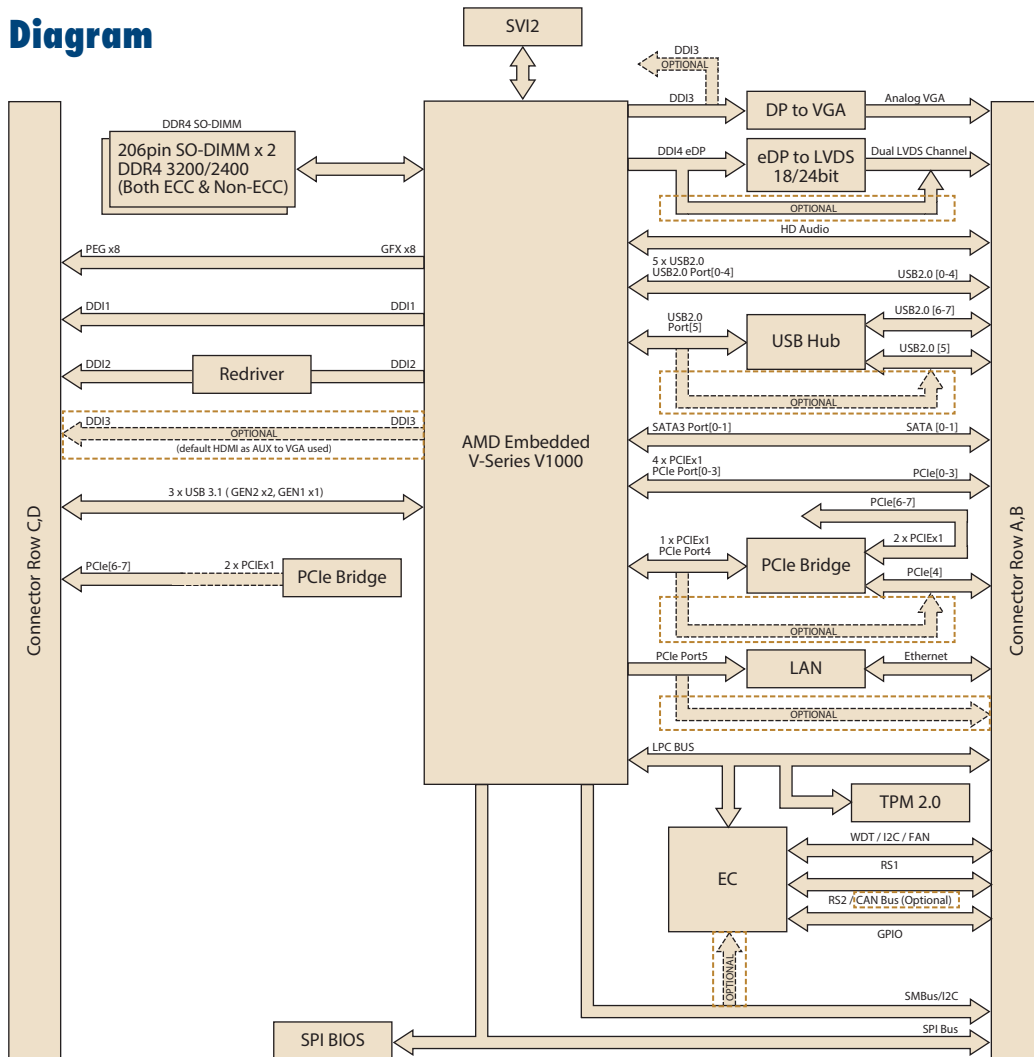
Utilities:



Specifications

Form Factor	Form Factor	COM Express Basic Module				
	Pin-out Type	COM Express R3.0 Type 6 pin out				
Processor System	CPU	AMD Ryzen Embedded V1807B	AMD Ryzen Embedded V1756B	AMD Ryzen Embedded V1605B	AMD Ryzen Embedded V1202B	AMD Ryzen Embedded V1404I
	Base Frequency	3.35GHz	3.25GHz	2GHz	2.5GHz	TBD
	Turbo Boost Frequency	3.75GHz	3.6GHz	3.6GHz	3.4GHz	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
	Technology	2400/3200 MT/s				
Memory	ECC Support	Yes				
	Max. Capacity	32GB				
	Socket	2 SO-DIMM(dual channel)				
Graphics	Controller	Vega Core Architecture				
	Max. Frequency	1.5GHz				
	Graphic Memory	TBD				
	3D/HW Acceleration	H.265 Decode & Encode, VP9 Decode DirectX® 12/EGL 1.4/OpenCL™ 2.1/OpenGL® 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	1 PCIe4, 3PCIex1 or 7PCIex1 (optional) via PCIe Bridge				
	Audio Interface (*For COMe)	HD Audio Interface				
	LPC	Yes				
Serial Bus	SMBus	Yes				
	I2C Bus	Yes (Optional, co-layout with SMBus)				
	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				
	Type	ATX: Vin, VSB; AT: Vin				
	Power	Supply Voltage	Vin: 8.5V (9V-5%) ~ 20V (19+5%); VSB: 5 +/-5%, RTC Battery: 2.0-3.3V			
Power Consumption		TBD				
Temperature		Operating Standard: 0 ~ 60 °C (32 ~ 140 °F), Extend: -40 ~ 85 °C (-40 ~ 185 °F) Storage: -40 ~ 85 °C (-40 ~ 185 °F)				
Environment	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")				

Block Diagram



Ordering Information

Part No.	CPU	Freq.	Cores	CPU TDP	PCH	DDR4 Memory	Thermal Solution	Operating Temperature
TBD							TBD	0 ~ 60 °C
TBD							TBD	0 ~ 60 °C
TBD							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)