

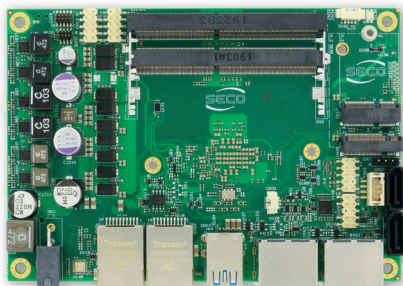
Single Board Computer



SBC-C90

3.5" SBC with AMD Ryzen™ Embedded R1000 / V1000 family of SOCs

Full connectivity on powerful AMD Ryzen™ platform



HIGHLIGHTS



CPU
AMD Ryzen™ Embedded V1000 and R1000 processors



CONNECTIVITY
2x GbE; M.2 WWAN and WLAN slots; 2x USB3.0; 2x USB 2.0; 8x GPIOs



GRAPHICS
AMD Radeon™ Vega GPU with up to 11 Compute Units



MEMORY
Two DDR4 SO-DIMM Slots supporting DDR4-3200/2400 ECC and non-ECC Memory

Available in Industrial Temperature Range



MAIN FIELDS OF APPLICATION



Digital Signage -
Infotainment



Edge Computing



Gaming



HMI



Industrial
Automation and
Control

FEATURES

Processor	AMD Ryzen™ Embedded V1000 family SoCs: - AMD Ryzen™ Embedded V1807B with AMD Radeon™ Vega 11 Graphics, Quad Core Dual Thread @ 3.35GHz (3.8 Boost), TDP 35-54W - AMD Ryzen™ Embedded V1756B with AMD Radeon™ Vega 8 Graphics, Quad Core Dual Thread @ 3.25GHz (3.6 Boost), TDP 35-54W - AMD Ryzen™ Embedded V1605B with GPU AMD Radeon™ Vega 8, Quad Core Dual Thread @ 2.0GHz (3.6 Boost), TDP 12-25W - AMD Ryzen™ Embedded V1202B with GPU AMD Radeon™ Vega 3, Dual Core Dual Thread @ 2.3GHz (3.2 Boost), TDP 12-25W AMD Ryzen™ Embedded R1000 family SoCs: - AMD Ryzen™ Embedded R1606G with GPU AMD Radeon™ Vega 3, Dual Core Dual Thread @ 2.6GHz (3.5 Boost), TDP 12-25W - AMD Ryzen™ Embedded R1505G with GPU AMD Radeon™ Vega 3, Dual Core Dual Thread @ 3.25GHz (3.6 Boost), TDP 12-25W	Mass Storage	M.2 NVMe slot (Socket 2 Key M Type 2280), PCI-e x4 interface microSD Card slot (combo with miniSIM slot) 2x SATA 7p M connectors w/ 1x power connector
Max Cores	4	Networking	Up to 2 x Gigabit Ethernet ports M.2 WWAN slot (Socket 2 Key B Type 2242/3042) for Modems M.2 Connectivity Slot (Socket 1 Key E Type 2230)
Memory	2x DDR4 ECC and non-ECC SODIMM Slots Support DDR4-2400 memories (DDR4-3200 with V1807B and V1756B), up to 32GB total	USB	2 x USB 3.0 Host ports on USB 3.0 Type-A sockets 2 x USB 2.0 Host ports on internal pin header 1 x USB 3.0 (V1000 SoCs) / USB 2.0 (R1000 SoCs) Host port on WWAN M.2 slot 1 x USB 2.0 Host port on M.2 Connectivity Slot
Graphics	GPU AMD Radeon™ VEGA with up to 11 Compute Units DirectX® 12 supported H.265 (10-bit) decode and 8-bit video encode VP9 decode 4 independent displays supported (3 with R1000 SoCs)	Audio	HD Audio codec Line Out + Microphone + S/PDIF Out interfaces on internal pin header
Video Interfaces	4x DP++ connectors (only 3 working with R1000 SoCs)	PCI-e	1 x PCI-e x4 port on M.2 NVMe Slot 1 x PCI-e x1 port on M.2 WWAN Slot 1 x PCI-e x1 port on M.2 Connectivity Slot 2x PCI-e x1 on Gigabit Ethernet Controllers
Video Resolution	DP++: Up to 4096 x 2160	Serial Ports	2 x RS-232/RS-422/RS-485 UARTS, on internal Pin Header
		Other Interfaces	miniSIM slot for M.2 modems (combo with microSD slot) 8 x GPIOs connector FAN connector Switch / LED Front Header connector 2x I2C on internal pin header Antitamper connector Optional TPM 1.2 or 2.0 onboard
		Power Supply	+12V _{DC} ÷ +24 V _{DC} RTC Battery
		Operating System	Microsoft® Windows 10 (64-bit) Linux Ubuntu



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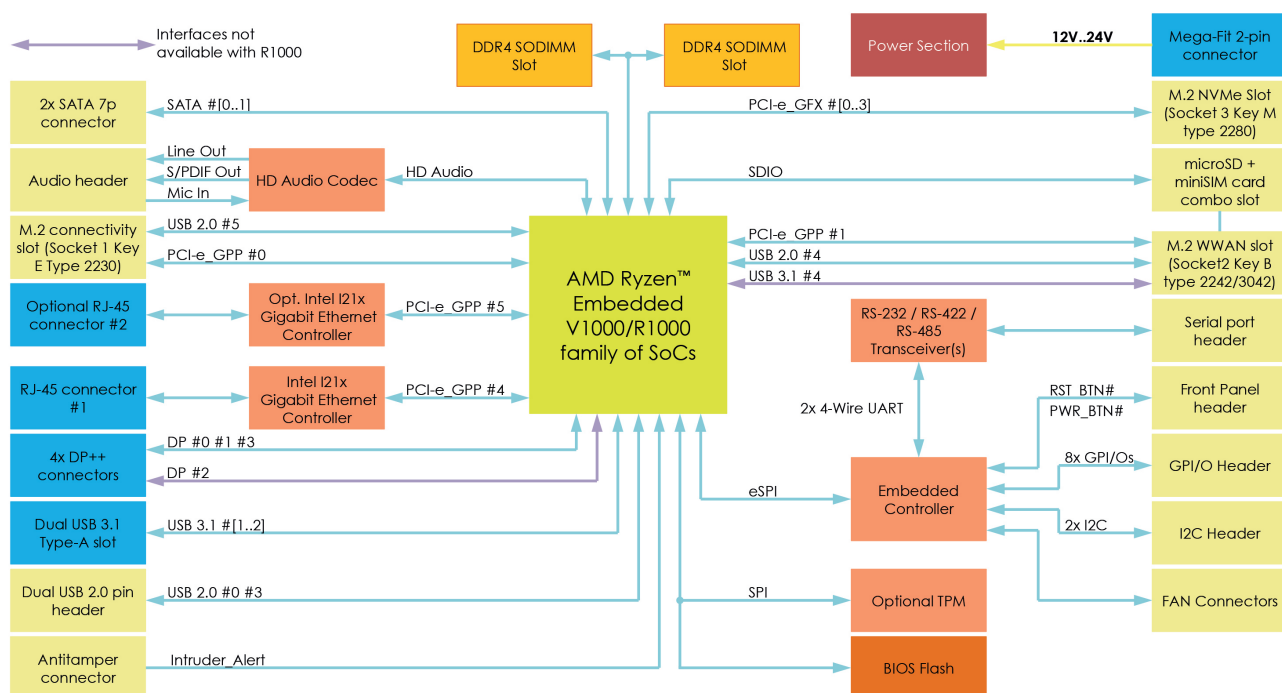
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FEATURES

Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version, only for future SoCs in extended temperature range and with TDP ≤25W)
Dimensions	146 x 102 mm (3.5" form factor)

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

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