Fanless Embedded Computers

CETUS

Fanless embedded computer with AMD Embedded 3rd generation R-Series SOC (formerly Merlin Falcon) or G-Series SOC-I (formerly Brown Falcon) or G-Series SOC-J (formerly Prairie Falcon)

The Next Generation Single-Board Computer



AI-ENABLED WITH CLEA

HIGHLIGHTS

CPU
AMD Embedded 3rd generation R-Series SOC or G-Series SOC-I or G-Series SOC-J (formerly Prairie Falcon)

CONNECTIVITY
2x GbE; 4x USB 3.0; 4x USB 2.0; 6x RS-232

GRAPHICS
AMD Radeon™ 3rd -Generation Graphics Core Next (GCN)

MEMORY
Up to 2x 8GB DDR4 SODIMM modules

AMD · H.264 MPEG-4/AVC on 4K ULTRA HD · H.265 on 4K ULTRA HD · DDR4

Windows 10 · Windows IoT · Linux

MAIN FIELDS OF APPLICATION

- Digital Signage - Infotainment
- Home entertainment
- Multimedia devices
- Point of Sales

FEATURES

Processor	AMD Embedded™ 3rd generation R-Series SOC (Merlin Falcon): AMD **RX-421BD**, Quad Core @ 2.1 GHz (3.4 GHz Max), 2MB L2 Cache, TDP 35W AMD **RX-418GD**, Quad Core @ 1.8 GHz (3.2 GHz Max), 2MB L2 Cache, TDP 35W AMD **RX-216GD**, Dual Core @ 1.6GHz (3.0 GHz Max), 1MB L2 Cache, TDP 15W AMD Embedded™ 3rd generation G-Series SOC-I (Brown Falcon): AMD **GX-217GI**, Dual Core @ 1.7 GHz (2.0 GHz Max), 1MB L2 Cache, TDP 15W AMD Embedded™ 3rd generation G-Series SOC-J (Prairie Falcon): AMD **GX-224IJ**, Dual Core @ 2.4GHz (2.8 GHz Max), 1MB L2 Cache, TDP 15W
System Memory	Up to 2x 8GB DDR4 SODIMM modules
Graphics	AMD Radeon™ 3rd -Generation Graphics Core Next (GCN) RX-421BD -Radeon™ R7 RX-418GD -Radeon™ R6 RX-216GD -Radeon™ R5 GX-217GI -Radeon™ R6E GX-224IJ, Radeon™ R4E Three independent displays supported (two with GX-217GJ and GX-224IJ) DirectX® 12 supported Unified Video Decode (UVD) 6 (4K H.265 and H.264 decode) Video Coding Engine (VCE) 3.1 (4K H.264 encode)
Video Interfaces	Up to 3 DP++ interfaces, supporting eDP1.4, DP 1.2, DVI and HDMI 1.4b/2.0
Video Resolution	Up to 4K
Mass Storage	Up to 2x internal SATA drives 2x CFAST Slots 1x microSD card slot PCI-e x4 M.2 Key M NVMe SSD Slot
Networking	2x Gigabit LAN / Realtek RTL8111G Gigabit Ethernet controllers
PCI-e	1 x PCI-e x4 port on M.2 Key M SSD Slot

USB	2x USB 3.0 Type-A sockets 2x USB 2.0 Type-A sockets 2x USB 3.0 on internal pin header 2x USB 2.0 on internal pin header
Audio	5.1 non amplified audio Jacks S/PDIF Optical (Toslink) Amplified Audio connector (Stereo Out + Subwoofer), 3x30W
Serial Ports	4 x RS-232 Full Modem ports on external DB9 male connectors 2 x RS-232 Full modem ports on internal IDC pin headers
Other Interfaces	2x FAN connectors Optional TPM 1.2 TPM 2.0 embedded in SoC (Windows support only) 8 x GPI, 8 x GPO
Power Supply	+12V$_{DC}$ ± 5%, mini-Fit 4x2 Power connectors 220mAh non-rechargeable Coin cell battery for RTC
Operating System	Microsoft® Windows 10 Microsoft® Windows 10 IoT Linux
Operating Temperature*	0°C ÷ +60 °C (Commercial temp.)
Dimensions	300 x 230 x 90 mm (11.81" x 9.05" x 3.54")

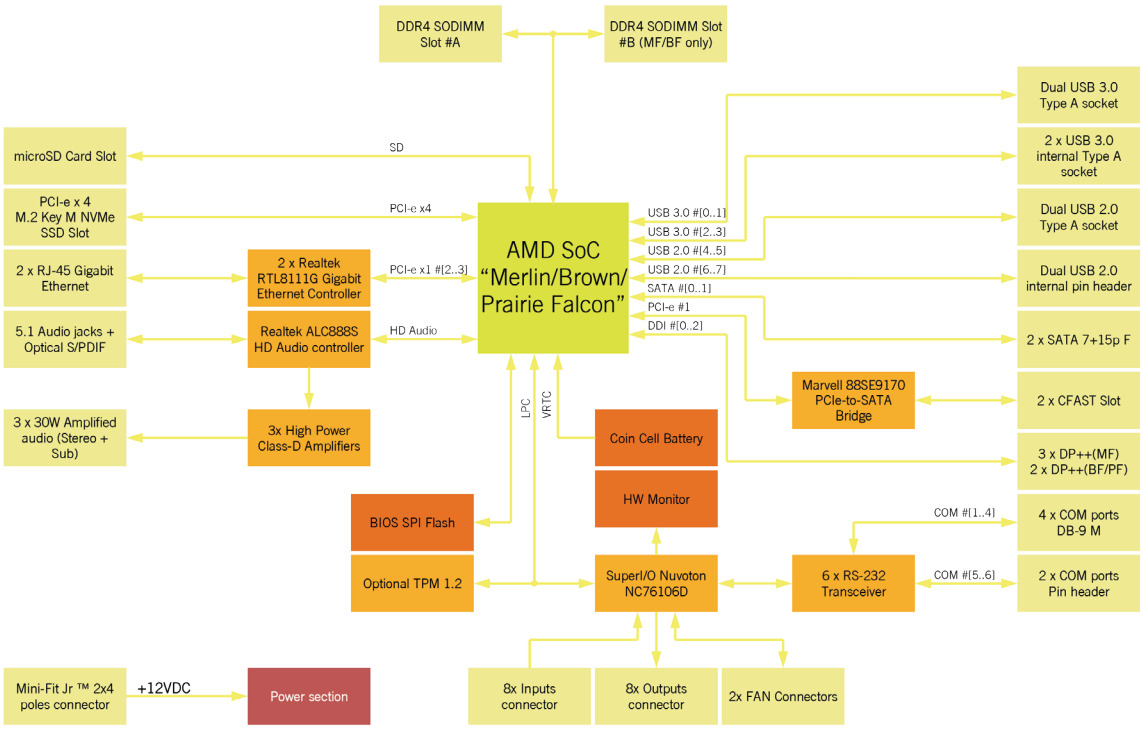
*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader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

Information subject to change. Please visit www.seco.com to find the latest version of this datasheet

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Fanless embedded computer with AMD Embedded 3rd generation R-Series SOC (formerly Merlin Falcon) or G-Series SOC-I (formerly Brown Falcon) or G-Series SOC-J (formerly Prairie Falcon)

BLOCK DIAGRAM



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