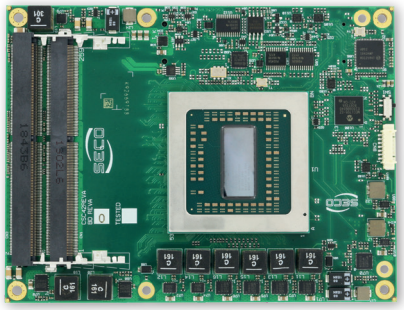
COM EXPRESS®

SOM-COMe-BT7-E3000

COM Express® Rel.3.0 Basic Type 7 module with the AMD EPYC™ Embedded 3000 Series of SoCs

Scalable offerings with outstanding performance and more connectivity



HIGHLIGHTS

CPU
AMD EPYC™ Embedded 3000 family of SoCs

CONNECTIVITY
4x USB 3.1; 24x PCI-e Gen3 lanes

NETWORKING
4x 10GBASE-KR interfaces + 1x 1GbE port with NC-SI

MEMORY
Four DDR4 SO-DIMM Slots supporting DDR4-2666 Memory with ECC, up to 128GB

Available in Industrial Temperature Range

COM Express · PICMG · AMD

Windows 10 · Windows Server 2016 · Linux

MAIN FIELDS OF APPLICATION

Industrial Automation

Energy & Utilities

FEATURES

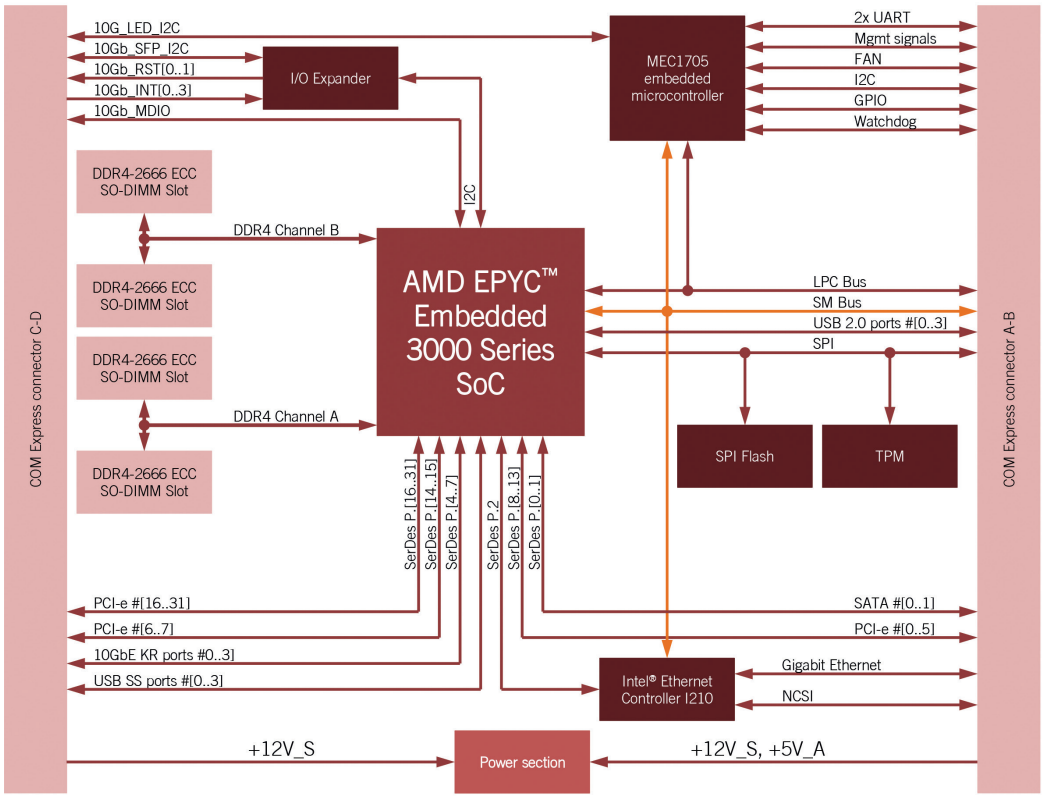
Processor	AMD EPYC™ Embedded 3000 family of SoCs: · AMD EPYC™ Embedded **3451**, Sixteen Core Dual Thread @ 2.14GHz (3.0 Boost), 32MB L3 shared Cache, TDP 80-100W · AMD EPYC™ Embedded **3351**, Twelve Core Dual Thread @ 1.9GHz (3.0 Boost), 32MB L3 shared Cache, TDP 60-80W · AMD EPYC™ Embedded **3251**, Eight Core Dual Thread @ 2.5GHz (3.1 Boost), 16MB L3 shared Cache, TDP 55W · AMD EPYC™ Embedded **3201**, Eight Core Single Thread @ 1.5GHz (3.1 Boost), 16MB L3 shared Cache, TDP 30W · AMD EPYC™ Embedded **3151**, Quad Core Dual Thread @ 2.7GHz (2.9 Boost), 16MB L3 shared Cache, TDP 45W · AMD EPYC™ Embedded **3101**, Quad Core Single Thread @ 2.1GHz (2.9 Boost), 8MB L3 shared Cache, TDP 35W · AMD EPYC™ Embedded **3255**, Eight Core Dual Thread @ 2.5GHz (3.1 Boost), 16MB L3 shared Cache, TDP 55W, industrial grade
Memory	Up to 4x DDR4 SO-DIMM Slots supporting DDR4-2666 Memory (both ECC and not-ECC supported), up to 128GB
Mass Storage	2x S-ATA Gen3 Channels
Networking	· 1x Gigabit Ethernet LAN port with NC-SI (Network Controller Sideband Interface) functionality, managed by an Intel® I210 Gigabit Ethernet Controller · 4x 10Gigabit Ethernet interfaces (10GBASE-KR), directly managed by the EPYC™ SoCs
USB	4 x USB 3.1 Host ports (SS + USB 2.0 interfaces)
PCI-e	24x PCI-e Gen3 lanes
Serial Ports	2x legacy UARTs, 16C550 compatible
Other Interfaces	SPI, SM Bus, LPC bus

Security	Optional TPM 2.0 module on-board AMD Secure Processor for Crypto Co-processing Hardware Validated Boot capabilities Secure Memory Encryption Secure Encrypted Virtualization
Embedded Controller Functionalities	Multi-Stage Watchdog Timer 2x I2C Advanced FAN management 4x GPI, 4 x GPO Power State Management Hardware and temperature monitoring POST Code redirection User Data Storage Board statistics: up-time, boot counter, reset cause log
BIOS	Dedicated embedded BIOS based on AMI Aptio V
Power Supply	+12V_{DC} ± 10% and +5V_{SB} (optional)
Operating System	Microsoft® Windows 10 Microsoft® Windows Server 2016 Linux OS 64-bit
Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°÷+85°C (Industrial Range, when available)
Dimensions	125mm x 95mm

*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.edge.seco.com to find the latest version of this datasheet

BLOCK DIAGRAM



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Streamline and expedite your edge computing implementations

EDGEHOG OS

A flexible operating system that adapts to your needs, thanks to the customization tool and Docker support. Reliability and security are built-in through a dual-partition system and native integration with Exein's robust AI-based protection.

DEVICE MANAGER

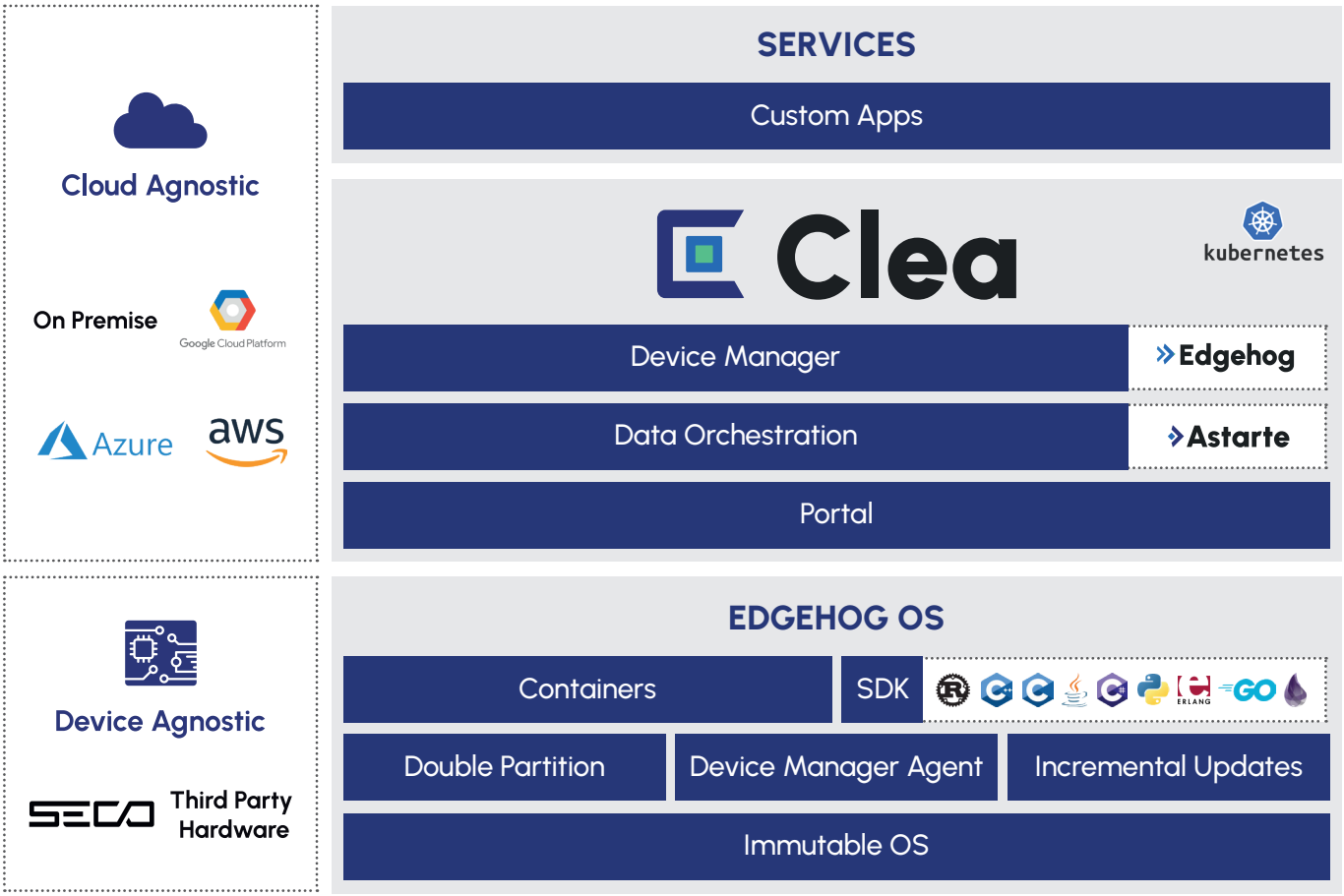
Update, configure, and manage remote devices. Optimize time and costs to maximize operational efficiency and security without the need for costly field interventions.

DATA ORCHESTRATION

Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

PORTAL

Analyze data from remote devices, customize the user experience with applications tailored to user needs, and manage user rights, company access, and tenant privileges.



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CLEA DOCS

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