

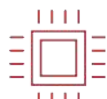
AMD Ryzen P100 CoM Express Type 6 Compact Module

The AMD RYZEN™ AI EMBEDDED P100 CoM express 6 series delivers a powerful combination of performance, scalability, and rugged reliability, enabling OEMs and system integrators to fast-track next-generation, AI-enabled embedded solutions.

- Advanced SoC Architecture: Integrates CPU, GPU, and NPU resources to provide balanced processing performance with efficient AI acceleration
- Built on the 4nm “Zen 5/5c” architecture with powerful “RDNA 3.5” graphics and XDNA™ 2 AI Engines
- Designed to withstand demanding industrial and automotive conditions with serviceable LPCAMM2 memory with screw-lock retention
- Extended Lifecycle Support: Offers of up to 10 years of availability, backed by long-term software maintenance (LTS)



Industry standard form
factor CoM6 Compact



x.86



Industrial Grade, 10 year
longevity



Power Efficient



AMD Ryzen AI Embedded P100 COM Express Type 6 Compact Module

The AMD Ryzen™ Embedded P100 Series with COM Express Type 6 Compact Form Factor combines powerful AI acceleration, high-performance compute, rugged reliability, and exceptional energy efficiency in a single embedded platform. At its core is the integrated XDNA™ 2 NPU, delivering up to 50 TOPS of AI inference performance, up to three times the capability of the Ryzen™ Embedded 8000 Series and up to 12 Zen 5 / Zen5c cores. This enables real-time, on-device AI processing without reliance on cloud infrastructure, making it ideal for latency-sensitive, bandwidth-constrained, and security-critical deployments.



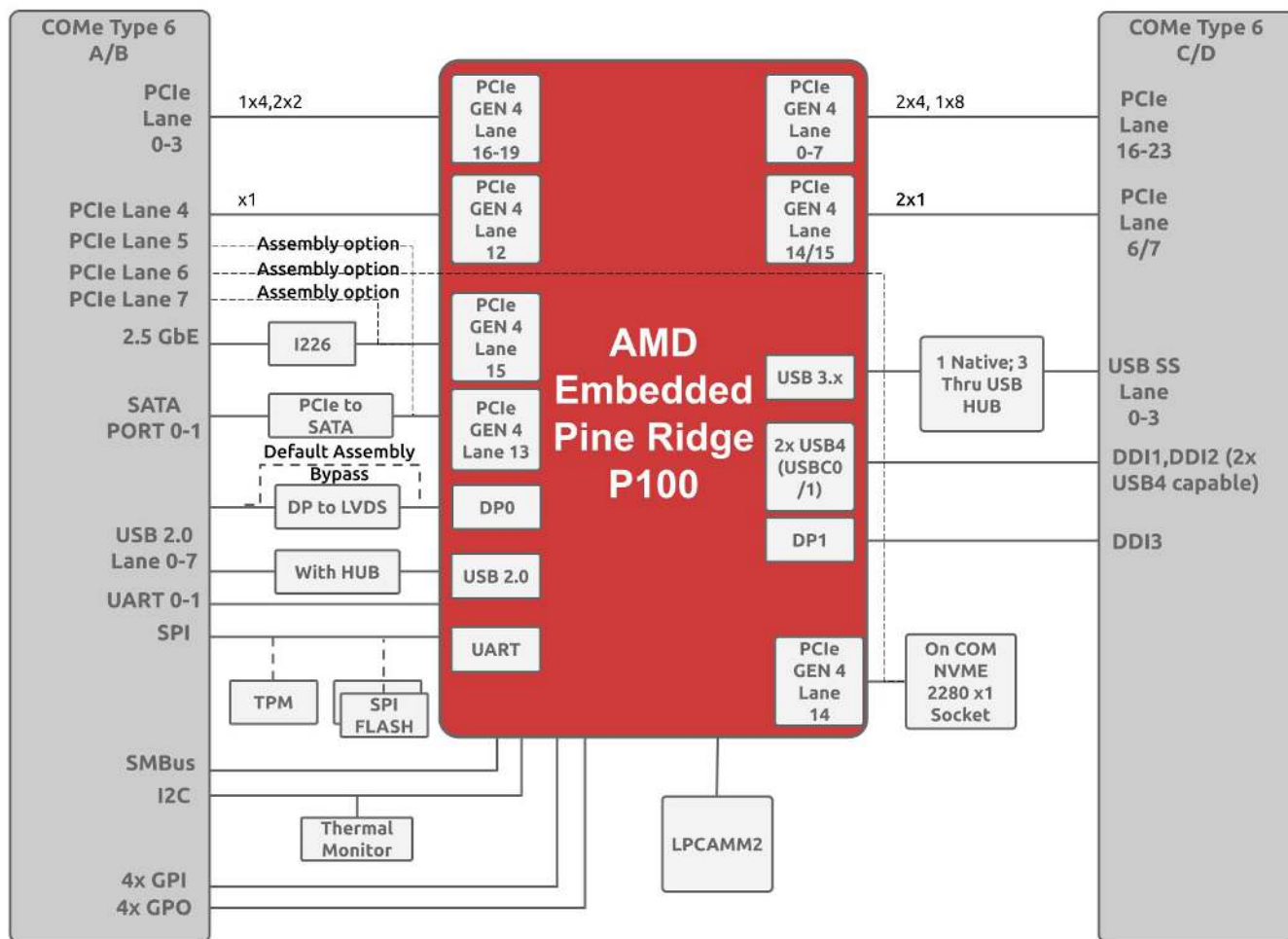
Compute and Vision Performance

Beyond AI acceleration, the P100 Series integrates advanced Zen 5 CPU cores and RDNA™ 3.5 graphics, significantly boosting both compute and visualization performance. With up to 35% greater GPU capability compared to previous generations, the platform supports smooth rendering for digital dashboards, sophisticated control interfaces, and graphics-intensive edge workloads. In display and multimedia performance, the integrated graphics engine supports up to four 4K displays at 120 Hz or dual 8K displays at 120 Hz, enabling high-resolution, multi-display configurations.

Use Cases

- **Mobile Robotics / AMRs / AGVs:** Edge inference and perception workloads with improved resilience for systems in motion.
- **Transportation & Rail Systems:** Rugged edge compute for monitoring, analytics, and real-time decisioning in mobile environments.
- **Industrial Automation & Machine Vision:** High memory bandwidth and AI acceleration for inspection, analytics, and closed-loop control.
- **Mobile & Harsh-Environment Medical Systems:** Reliable edge performance for mobile carts, diagnostics, and connected clinical devices.
- **Heavy Machinery & Off-Highway Platforms:** Edge AI for sensor-driven automation and predictive maintenance where durability is critical.

AMD P100 COMe6 - Compact



AMD Ryzen AI Embedded P100 CoMe6 Compact

Processor	Embedded Krackan2e / Pine Ridge P100 Series 6c - 12c (Zen5 / Zen5c)
Connectivity	4x USB 2.0, 1x USB 3.2 gen 2 10 Gb/s, 3x USB 3.0 5Gb/s 13x PCIe gen4, Additional 3x lanes optional with SATA/NVME/NIC 2x UART, 2x SATA 3.0
Memory & Storage	1x LPCAMM2 LPDDR5 Up to 9600 MT/s. Screw Lock secured. On COM M.2 2280 NVME NVME/SATA
Networking	1x 2.5Gbps Ethernet (Intel I226)
Security	dTPM 2.0 BMC ready
3D GPU Support.	Integrated GPU with up to 1080p630 8bpc H.264 encoder Encoder - 1080p630 8bpc H.264, 1440p373 8bpc H.264, 2160p175 8bpc H.264, 1080p630 8bpc H.265, 1440p373 8bpc H.265, 2160p175 8bpc H.265, 4320p43 8bpc H.265, 1080p864 8/10bpc AV1, 1440p513 8/10bpc AV1, 2160p240 8/10bpc AV1, 4320p60 8/10bpc AV1 Decoder - 1080p60 8bpc MPEG2, 1080p60 8bpc VC1, 1080p786 8/10bpc VP9, 2160p196 8/10bpc VP9, 4320p49 8/10bpc VP9, 1080p1200 8bpc H.264, 2160p300 8bpc H.264, 4320p75 8bpc H.264, 1080p786 8/10bpc H.265, 2160p196 8/10bpc H.265, 4320p49 8/10bpc H.265, 1080p960 8/10bpc
AI Accelerator NPU	50 TOPS
Display	4x DP, Optional eDP to LVDS (default eDP), Eval board - eDP+HDMI+2xminiDP
Os Support	Windows 10/11/IoT, Linux, Other x86 operating systems supported
Physical	Standard COM6 Compact 95mm x 95mm Per COMe6 Compact Standard
Temperature	CPU Commercial: 0°C to Junction 105°C CPU Industrial: -40°C to Junction 105°C All other components -40° to 85°
Humidity	Humidity (non-condensing): 10% – 90%