



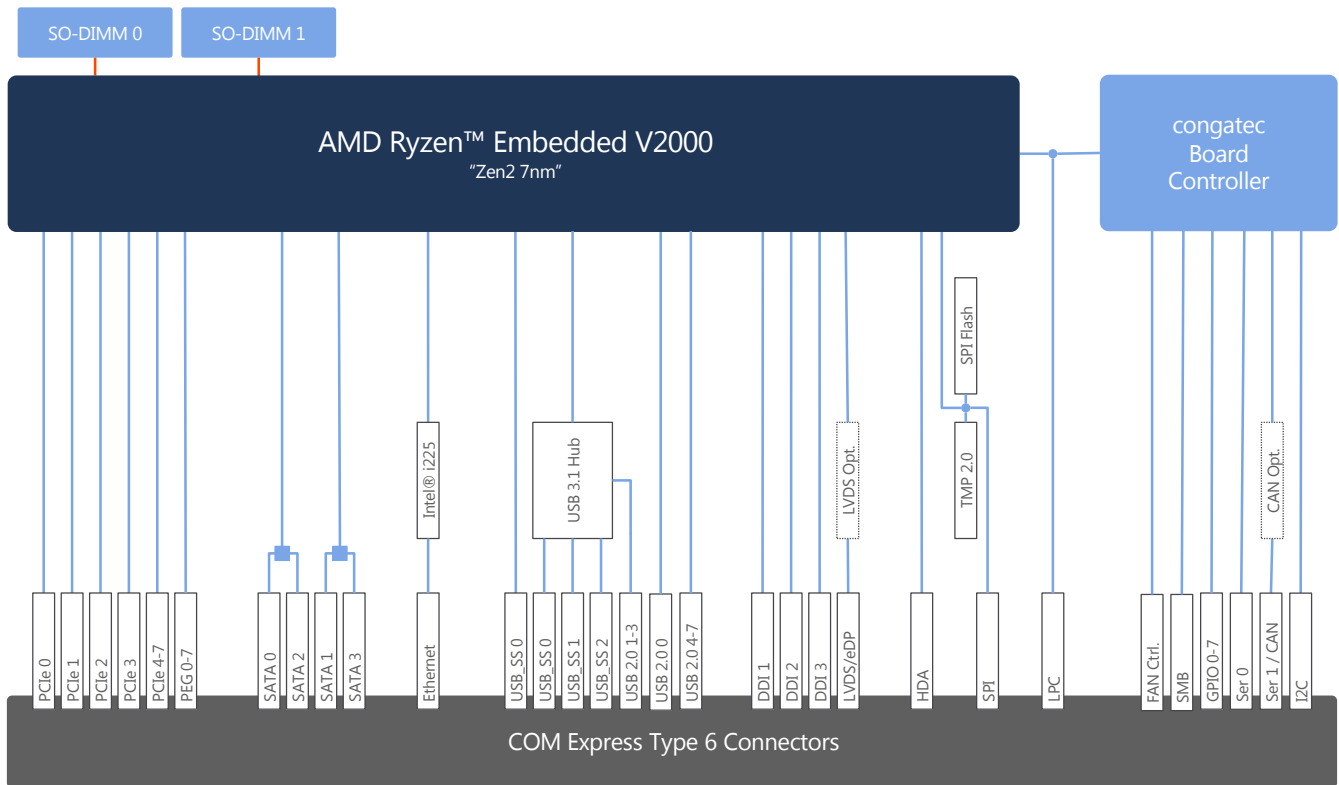
conga-TCV2



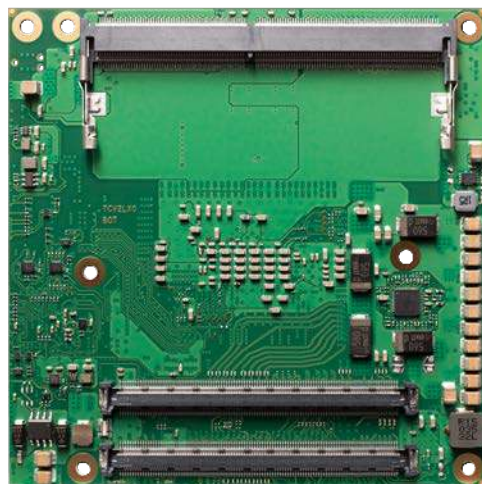
- High-performance Zen 2 CPU & VEGA GPU
- TDP Range 10-54W
- Supporting 4 simultaneous 4K displays
- Up to 64GByte dual channel DDR4 3200MT/s
- AMD Secure Processor with AMD Memory Guard

Form Factor	COM Express® Compact, 95 x 95 mm Type 6 connector pinout				
CPU	General Embedded Versions AMD Ryzen™ Embedded V2748 AMD Ryzen™ Embedded V2718 AMD Ryzen™ Embedded V2546 AMD Ryzen™ Embedded V2516	8 Cores 16 Threads 8 Cores 16 Threads 6 Cores 12 Threads 6 Cores 12 Threads	4 MB L2 8 MB L3 cache 4 MB L2 8 MB L3 cache 3 MB L2 8 MB L3 cache 3 MB L2 8 MB L3 cache	7 GPU CU 7 GPU CU 6 GPU CU 6 GPU CU	35-54 W TDP 10-25 W TDP 35-54 W TDP 10-25 W TDP
DRAM	Up to 2 SO-DIMM sockets for DDR4 memory modules up to 32 GByte each (64 GByte total) with 3200 MT/s and ECC support				
Graphics	Integrated Radeon™ graphics engine with up to 7 Compute Units Supporting 4 independent display units (4x 4K) DirectX 12 support VCN2.2 (H.264/AVC HW 8b H.265/HEVC HW 8/10b VP9 HW 8/10b) DP 1.4				
Display	3x DP/DP++ eDP/LVDS				
Ethernet	1x Gigabit Ethernet via Intel® i225				
I/O Interfaces	5x PCIe Gen3 (8 lanes) PEG support x8 4x USB 3.1 Gen 2 8/4x USB 2.0 2x SATA III (6Gb/s) 2x UART 8x GPIO LPC				
Audio	HD-Audio over DP++ ports HDA interface				
congatec Board Controller	Multi Stage Watchdog non-volatile User Data Storage Manufacturing and Board Information Board Statistics I ² C bus (fast mode, 400 kHz, multi-master) Power Loss Control Hardware Health Monitoring POST Code redirection				
Embedded BIOS Features	AMI Aptio® UEFI firmware 16 Mbyte serial SPI with congatec Embedded BIOS feature OEM Logo OEM CMOS Defaults LCD Control Display Auto Detection Backlight Control Flash Update				
Security	Trusted Platform Module (TPM 2.0) AMD Secure Processor AMD Memory Guard				
Power Management	ACPI 5.0 with battery support				
Operating Systems	Microsoft® Windows 10 Microsoft® Windows 10 IoT Enterprise Ubuntu Linux LTS RTS Hypervisor				
Temperature Range	Commercial:	Operating: 0 to +60°C	Storage: -40 to +85°C		
Humidity	Operating:	10 - 90% r. H. non cond.			
	Storage:	5 - 95% r. H. non cond.			
Size	95 x 95 mm				

conga-TCV2 | Block Diagram



conga-TCV2 | Bottom Side View





Article	PN	Description
conga-TCV2/V2748	050500	COM Express Type 6 Compact module based on AMD Ryzen™ Embedded V2748 8-core processor with 2.9GHz up to 4.25GHz boost freq., 4MB L2 cache, Radeon™ Vega Graphics with 7 CU and dual channel DDR4 3200 MT/s memory interface with ECC support. Commercial temperature range.
conga-TCV2/V2546	050501	COM Express Type 6 Compact module based on AMD Ryzen™ Embedded V2546 6-core processor with 3.0GHz up to 3.95GHz boost freq., 3MB L2 cache, Radeon™ Vega Graphics with 6 CU and dual channel DDR4 3200 MT/s memory interface with ECC support. Commercial temperature range.
conga-TCV2/V2718	050502	COM Express Type 6 Compact module based on AMD Ryzen™ Embedded V2718 8-core processor with 1.7GHz up to 4.15GHz boost freq., 4MB L2 cache, Radeon™ Vega Graphics with 7 CU and dual channel DDR4 3200 MT/s memory interface with ECC support. Commercial temperature range.
conga-TCV2/V2516	050503	COM Express Type 6 Compact module based on AMD Ryzen™ Embedded V2516 6-core processor with 2.1GHz up to 3.95GHz boost freq., 3MB L2 cache, Radeon™ Vega Graphics with 6 CU and dual channel DDR4 3200 MT/s memory interface with ECC support. Commercial temperature range.
conga-TCV2/CSA-HP-B	050550	Standard active cooling solution for high performance COM Express module conga-TCV2 with integrated heat pipes, 25.5mm overall heat sink height and integrated 12V fan. All standoffs are with 2.7mm bore hole.
conga-TCV2/CSA-HP-T	050551	Standard active cooling solution for high performance COM Express module conga-TCV2 with integrated heat pipes, 25.5mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm thread.
conga-TCV2/CSP-HP-B	050552	Standard passive cooling solution for high performance COM Express module conga-TCV2 with integrated heat pipes, 24.3mm overall heat sink height. All standoffs are with 2.7mm bore hole.
conga-TCV2/CSP-HP-T	050553	Standard passive cooling solution for high performance COM Express module conga-TCV2 with integrated heat pipes, 24.3mm overall heat sink height. All standoffs are M2.5mm thread.
conga-TCV2/HSP-HP-B	050554	Standard heatspreader for high performance COM Express module conga-TCV2 with integrated heat pipes, 11mm overall heat sink height. All standoffs are with 2.7mm bore hole.
conga-TCV2/HSP-HP-T	050555	Standard heatspreader for high performance COM Express module conga-TCV2 with integrated heat pipes, 11mm overall heat sink height. All standoffs are M2.5mm thread.
conga-TEVAL/COMe 3.0	65810	Evaluation Carrier Board for COM Express Type 6 modules.