

# HIGH PERFORMANCE COMPACT MODULE

## conga-TCV2



- COM Express Compact Type 6
- Next gen 7nm SOC
- High-performance Zen 2 CPU & VEGA 7 GPU
- Huge scalability with TDP Range from 10-54W
- Up to 64GByte dual channel DDR4 3200MT/s memory ECC & Non-ECC
- AMD Secure Processor with Secure Boot (SME)

**COM Express®**

<b>Formfactor</b>	COM Express® Compact, (95 x 95 mm)   Type 6 connector pinout				
<b>CPU</b>	<b>General Embedded Versions</b> AMD Ryzen Embedded V2748      8 Cores   16 Threads      4 MB L2   8 MB L3 cache      7 GPU CU      35-54 W TDP AMD Ryzen Embedded V2718      8 Cores   16 Threads      4 MB L2   8 MB L3 cache      7 GPU CU      10-25 W TDP AMD Ryzen Embedded V2546      6 Cores   12 Threads      3 MB L2   6 MB L3 cache      6 GPU CU      35-54 W TDP AMD Ryzen Embedded V2516      6 Cores   12 Threads      3 MB L2   6 MB L3 cache      6 GPU CU      10-25 W TDP				
<b>DRAM</b>	Up to 2 SO-DIMM sockets for DDR4 memory modules up to 32 GByte each (64 GByte total) with 3200 MT/s				
<b>Graphics</b>	Integrated VEGA 7 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)   HDMI 2.1   DP 1.4				
<b>Display</b>	3x DP/HDMI/DP++   eDP/LVDS				
<b>Ethernet</b>	1x 2,5GbE TSN Ethernet via Intel® i225				
<b>I/O Interfaces</b>	8x PCIe Gen3   PEG support x8 2x USB 3.1 Gen 2   8x USB 2.0 2x SATA III (6Gb/s)   SPI   2x UART   8x GPIO				
<b>Audio</b>	HDA interface				
<b>congatec Board Controller</b>	Multi Stage Watchdog   non-volatile User Data Storage   Manufacturing and Board Information   Board Statistics I <sup>2</sup> C bus (fast mode, 400 kHz, multi-master)   Power Loss Control   Hardware Health Monitoring   POST Code redirection				
<b>Embedded BIOS Features</b>	OEM Customization   Flash Update   based on AMI Aptio UEFI				
<b>Security</b>	Trusted Platform Module (TPM 2.0)				
<b>Power Management</b>	ACPI 5.0 with battery support				
<b>Operating Systems</b>	tbd				
<b>Power Consumption</b>	See user's guide for full details				
<b>Temperature</b>	Commercial:    Operating: 0 to +60°C		Storage: -40 to +85°C		
<b>Humidity</b>	Operating: 10 - 90% r. H. non cond.		Storage: 5 - 95% r. H. non cond.		
<b>Size</b>	95 x 95 mm				

# conga-TCV2 | Order Information

Article	PN	Description
conga-TCV2/V2748	050500	COM Express Type 6 Compact module based on AMD Embedded Ryzen V2748 8-core processor with 2.9GHz up to 4.25GHz turbo boost, 4MB L2 cache, Radeon Vega7 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 Embedded Ryzen V2546 6-core processor with 3.0GHz up to 3.95GHz turbo boost, 3MB L2 cache, Radeon Vega6 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 Embedded Ryzen V2718 8-core processor with 1.7GHz up to 4.15GHz turbo boost, 4MB L2 cache, Radeon Vega7 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 Embedded Ryzen V2516 6-core processor with 2.1GHz up to 3.95GHz turbo boost, 3MB L2 cache, Radeon Vega6 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.