

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®

Formfactor	COM Express® Compact, (95 x 95 mm) Type 6 connector pinout				
CPU	General Embedded Versions 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				
DRAM	Up to 2 SO-DIMM sockets for DDR4 memory modules up to 32 GByte each (64 GByte total) with 3200 MT/s				
Graphics	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				
Display	3x DP/HDMI/DP++ eDP/LVDS				
Ethernet	1x 2,5GbE TSN Ethernet via Intel® i225				
I/O Interfaces	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				
Audio	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	OEM Customization Flash Update based on AMI Aptio UEFI				
Security	Trusted Platform Module (TPM 2.0)				
Power Management	ACPI 5.0 with battery support				
Operating Systems	tbd				
Power Consumption	See user's guide for full details				
Temperature	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 | 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.



Distributore Italia: Contradata Milano S.r.l.

Via Solferino 12 - 20900 Monza (MB) - Italy
Tel: (+39) 039-230.14.92 Email: info@contradata.it

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