11TH GEN INTEL® CORE™ PROCESSORS Conga-TC570r





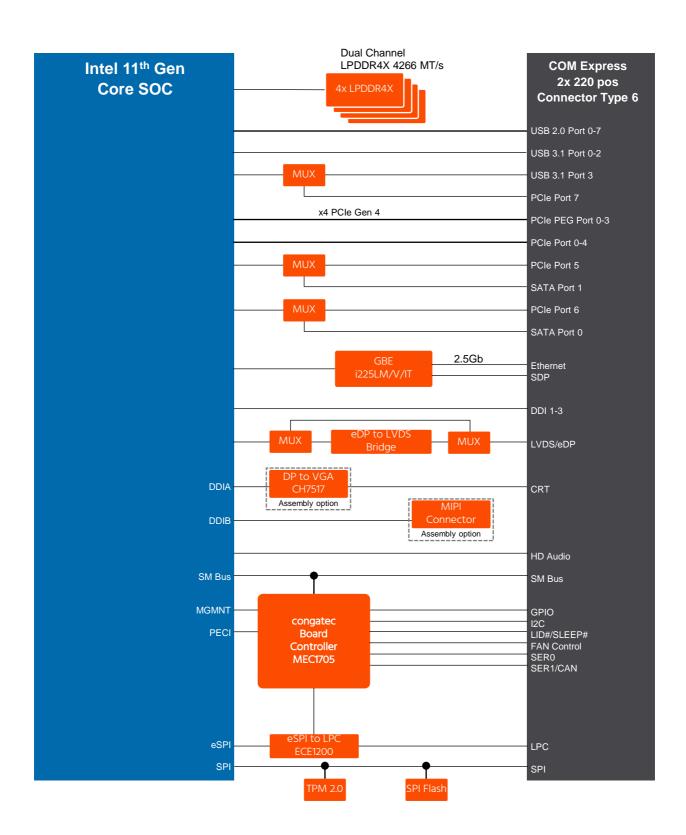
- Embedded/Industrial use condition
- Extended temperature options available
- PCI Express Gen 4
- Up to 32 GByte dual channel LPDDR4X soldered down memory with 4266 MT/s IBECC
- AI/DL Instruction Sets including VNNI

Core® 17-1185G7E 4C/8T 180 GHz / 440 GHz 12-28W 96EU Embedded Broad Market Core® 15-1145G7E 4C/8T 150 GHz / 440 GHz 12-28W 80EU Embedded Broad Market Core® 15-1145G7E 4C/8T 150 GHz / 440 GHz 12-28W 48EU Embedded Broad Market Celeron 6305E 2C/2T 180 GHz / 440 GHz 12-28W 48EU Embedded Broad Market Celeron 6305E 2C/2T 180 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T 150 GHz / 440 GHz 12-28W 96EU Industrial Core® 15-1145GRE 4C/8T	Form Factor	COM Express® Co	COM Express® Compact, (95 x 95 mm) Type 6 connector pinout					
Core S-1145G7E 4C/8T 1.50 GHz / 1.40 GHz 12-28W 80EU Embedded Broad Market Core S-1145G4E 2C/4T 2.20 GHz / 1.90 GHz / 1.28W 48EU Embedded Broad Market Celeron 6305E 2C/2T 180 GHz / 4.40 GHz 1.28W 9EU Industrial Industrial Core S-1145GRE 4C/8T 1.50 GHz / 4.40 GHz 12-28W 80EU Industrial I	CPU	Processor	Cores/Threads	Base Frequency/max. Turbo	TDP	Graphics	Intel Use Condition	
Core™ 13-115G4E 2C/4T 2.20 GHz 13-0 GHz 12-28W 48EU Embedded Broad Market Celero 6305E 2C/2T 180 GHz 7- 180 GHz 7- 15W 48EU Embedded Broad Market Core™ 17-118GGRE 4C/8T 180 GHz 7-440 GHz 12-28W 9EU Industrial Industrial Core™ 15-1145GRE 4C/8T 180 GHz 7-440 GHz 12-28W 9EU Industrial Industrial Industrial 15-1145GRE 4C/8T 12-26 GHz 7-410 GHz 12-28W 9EU Industrial Industrial Industrial 15-1145GRE 4C/8T 22-0 GHz 7-410 GHz 12-28W 9EU Industrial Industrial Industrial 15-1145GRE 4C/8T 22-0 GHz 7-410 GHz 12-28W 9EU Industrial 15-1145GRE 4C/8T 22-0 GHz 7-430 GHz 12-28W 9EU Industrial 16-1145 (Core™ 13-115GRE 2C/4T 22-0 GHz 7-30 GHz 12-28W 9EU Industrial 15-1145GRE 4C/8T 22-0 GHz 7-30 GHz 12-28W 9EU Industrial 15-1145GRE 4C/8T 22-0 GHz 7-30 GHz 12-28W 9EU Industrial 15-1145GRE 4C/8T 22-0 GHz 7-30 GHz 12-28W 9EU Industrial 15-1145GRE 4C/8T 22-0 GHz 7-30 GHz 12-28W 9EU Industrial 15-1145GRE 4C/8T 22-0 GHz 7-30 GHz 12-28W 9EU Industrial 15-1145GRE 4C/8T 22-0 GHz 7-30 GHz 12-28W 9EU Industrial 15-1145GRE 4C/8T 22-0 GHz 7-30 GHz 12-28W 9EU Industrial 15-1145GRE 4C/8T 22-0 GHz 7-30		Core™ i7-1185G7E	4C/8T	1.80 GHz / 4.40 GHz	12-28W	96EU	Embedded Broad Market	
Celeron 6305E 2C/2T 180 GHz / 15W 48EU Embedded Broad Market Core™-17:185GRE 4C/8T 150 GHz / 440 GHz 12-28W 9EU Industrial Industrial Core™-15:145GRE 4C/8T 150 GHz / 410 GHz 12-28W 80EU Industrial Industrial Industrial Core™-15:145GRE 2C/4T 220 GHz / 390 GHz 12-28W 80EU Industrial Industrial Industrial Industrial Industrial Industrial PSC 20 GHz / 390 GHz 12-28W 80EU Industrial Indust			-, -	•			Embedded Broad Market	
Core® IS-1185GRE 4C/BT 150 GHz / 440 GHz 12-28W 96EU Industrial Core® IS-1145GRE 4C/BT 150 GHz / 410 GHz 12-28W 80EU Industrial Loce® IS-115GRE 2C/4T 22.0 GHz / 3.90 GHz 12-28W 48EU Industrial Industrial Loce® IS-115GRE 2C/4T 22.0 GHz / 3.90 GHz 12-28W 48EU Industrial Industrial Loce® IS-115GRE 2C/4T 22.0 GHz / 3.90 GHz 12-28W 48EU Industrial Industrial Loce® IS-115GRE 2C/4T 22.0 GHz / 3.90 GHz 12-28W 48EU Industrial Industrial Loce® IS-115GRE 2C/4T 22.0 GHz / 3.90 GHz 12-28W 48EU Industrial Loce® IS-115GRE 2C/4T 22.0 GHz / 3.90 GHz 12-28W 48EU Industrial Loce® IS-115GRE 2C/4T 22.0 GHz / 3.90 GHz 12-28W 48EU Industrial Loce® IS-12-28W 48EU Industrial IS-12-28W 4			•	*				
Core Mis-HISGRE AC/BT 150 GHz / 410 GHz 12-28W 80EU Industrial 220 GHz 13-90 GHz 12-28W 48EU Industrial 220 GHz / 390 GHz 22 GHz / 390 GHz / 390 GHz 22 GHz / 390 GHz / 3			•					
Core™ i3-1115GRE 2C/4T 2.20 GHz / 3.90 GHz 12-28W 48EU Industrial			•					
Integrated Xe (Gen 12) graphics engine with up to 96 EU (Execution Units) Supporting 4 independent display un (4x 4k/2x 8K) Enhanced media (AV1/12b) with up to 2 Vdbox Next Gen IPU6 with DPHY2.1 DP 1.4 3x DP/DP++ 1x eDP Ethernet 1x 2.5 GbE TSN Ethernet via Intel® 1225 // O Interfaces 8x PCIe Gen3 PEG support x4 (PCIe Gen4) 4x USB 3.1 Gen 2 8x USB 2.0 2x SATA III (6Gb/s) SPI 2x UART 8x GPIO Audio HDA interface Multi Stage Watchdog non-volatile User Data Storage Manufacturing and Board Information Board Statistics IPC bus (fast mode, 400 kHz, multi-master) Power Loss Control Hardware Health Monitoring POST Code redirection Embedded BIOS Feature AMI Aptio® UEFI firmware 32 Mbyte serial SPI with congatec Embedded BIOS feature OEM Logo OEM CMOS Defaults LCD Control Display Auto Detection Backlight Control Flash Update Trusted Platform Module (TPM 2.0) ACPI 5.0 with battery support Microsoft® Windows 10 Microsoft® Windows 10 IoT Enterprise Microsoft® Windows IoT 10 Core Linux Android Yocto RTS Hypervisor Temperature Range Commercial: Operating Temperature: 0 to +60°C Storage Temperature: -20 to +88°C Humidity Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.			·					
Commercial: Operating Systems Commercial: Operating Storage: 5 to 95% r. H. non cond. Storage: 5	DRAM	Up to 32 GByte L	PDDR4X 4266M	T/s SDRAM memory dow	n dual chann	el IBECC		
Trusted Platform Module (TPM 2.0) Security Trusted Platform Module (TPM 2.0) ACPI 5.0 with battery support ACPI 5.0	Graphics	Integrated Xe (Gen 12) graphics engine with up to 96 EU (Execution Units) Supporting 4 independent display units (4x 4k/2x 8K) Enhanced media (AV1/12b) with up to 2 Vdbox Next Gen IPU6 with DPHY2.1 DP 1.4						
Security Trusted Platform Module (TPM 2.0)	Display	3x DP/DP++ 1x eDP						
Ax USB 3.1 Gen 2 8x USB 2.0 2x SATA III (6Gb/s) SPI 2x UART 8x GPIO HDA interface 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 AMI Aptio® UEFI firmware 32 Mbyte serial SPI with congatec Embedded BIOS feature OEM Logo OEM CMOS Defaults LCD Control Display Auto Detection Backlight Control Flash Update Trusted Platform Module (TPM 2.0) Power Management ACPI 5.0 with battery support Microsoft® Windows 10 Microsoft® Windows 10 IoT Enterprise Microsoft® Windows IoT 10 Core Linux Android Yocto RTS Hypervisor Temperature Range Commercial: Operating Temperature: 0 to +60°C Storage Temperature: -20 to +80°C Industrial: Operating Temperature: -40 to +85°C Storage Temperature: -40 to +85°C Humidity Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.	Ethernet	1x 2.5 GbE TSN Ethernet via Intel® i225						
Multi Stage Watchdog non-volatile User Data Storage Manufacturing and Board Information Board Statistics C bus (fast mode, 400 kHz, multi-master) Power Loss Control Hardware Health Monitoring POST Code redirection AMI Aptio® UEFI firmware 32 Mbyte serial SPI with congatec Embedded BIOS feature OEM Logo OEM CMOS Defaults LCD Control Display Auto Detection Backlight Control Flash Update Trusted Platform Module (TPM 2.0) Power Management ACPI 5.0 with battery support Microsoft® Windows 10 Microsoft® Windows 10 IoT Enterprise Microsoft® Windows IoT 10 Core Linux Androic Yocto RTS Hypervisor Temperature Range Commercial: Operating Temperature: 0 to +60°C Storage Temperature: -20 to +80°C Industrial: Operating Temperature: -40 to +85°C Storage Temperature: -40 to +85°C Humidity Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.	I/O Interfaces	4x USB 3.1 Gen 2 8x USB 2.0						
I ² C bus (fast mode, 400 kHz, multi-master) Power Loss Control Hardware Health Monitoring POST Code redirection AMI Aptio® UEFI firmware 32 Mbyte serial SPI with congatec Embedded BIOS feature OEM Logo OEM CMOS Defaults LCD Control Display Auto Detection Backlight Control Flash Update Trusted Platform Module (TPM 2.0) ACPI 5.0 with battery support Microsoft® Windows 10 Microsoft® Windows 10 IoT Enterprise Microsoft® Windows IoT 10 Core Linux Androic Yocto RTS Hypervisor Temperature Range Commercial: Operating Temperature: 0 to +60°C Storage Temperature: -20 to +80°C Industrial: Operating Temperature: -40 to +85°C Storage Temperature: -40 to +85°C Humidity Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.	Audio	HDA interface						
Defaults LCD Control Display Auto Detection Backlight Control Flash Update Trusted Platform Module (TPM 2.0) ACPI 5.0 with battery support Microsoft® Windows 10 Microsoft® Windows 10 loT Enterprise Microsoft® Windows loT 10 Core Linux Android Yocto RTS Hypervisor Temperature Range Commercial: Operating Temperature: 0 to +60°C Storage Temperature: -20 to +80°C Industrial: Operating Temperature: -40 to +85°C Storage Temperature: -40 to +85°C Humidity Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.	congatec Board controller	I ² C bus (fast mode, 400 kHz, multi-master) Power Loss Control Hardware Health Monitoring POST Code						
ACPI 5.0 with battery support Microsoft® Windows 10 Microsoft® Windows 10 loT Enterprise Microsoft® Windows loT 10 Core Linux Android Yocto RTS Hypervisor Commercial: Operating Temperature: 0 to +60°C Storage Temperature: -20 to +80°C Industrial: Operating Temperature: -40 to +85°C Storage Temperature: -40 to +85°C Humidity Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.	Embedded BIOS Feature							
Microsoft® Windows 10 Microsoft® Windows 10 Tenterprise Microsoft® Windows Microsoft® Windows Android Android Yocto RTS Hypervisor	Security	Trusted Platform Module (TPM 2.0)						
Yocto RTS Hypervisor Commercial: Operating Temperature: 0 to +60°C Storage Temperature: -20 to +80°C Industrial: Operating Temperature: -40 to +85°C Storage Temperature: -40 to +85°C Humidity Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.	Power Management	ACPI 5.0 with battery support						
Industrial: Operating Temperature: -40 to +85°C Storage Temperature: -40 to +85°C Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.	Operating Systems	Microsoft® Windows 10 Microsoft® Windows 10 IoT Enterprise Microsoft® Windows IoT 10 Core Linux Android Yocto RTS Hypervisor						
Humidity Operating: 10 to 90% r. H. non cond. Storage: 5 to 95% r. H. non cond.	Temperature Range							
Storage: 5 to 95% r. H. non cond.		Industrial: O	perating Temper	ature: -40 to +85°C	Storage Tempe	erature: -40 to	+85℃	
	Humidity	, ,						
Γi=a	Size	95 x 95 mm ²						





conga-TC570r | Order Information





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Article	PN	Description		
conga-TC570r/i7-1185GRE-32G	050330	COM Express Type 6 Compact module based on Intel® Core™ i7-1185GRE 4-core processor with 1.8GHz up to 4.4GHz turbo boost, 12MB cache, Intel® Iris® Xe Graphics with 96EU and 32 GByte dual channel LPDDR4X 4266 MT/s memory down (Intel Tiger Lake). Industrial temperature range.		
conga-TC570r/i5-1145GRE-16G	050331	COM Express Type 6 Compact module based on Intel® Core™ i5-1145GRE 4-core processor with 1.5GHz up to 4.1GHz turbo boost, 8MB cache, Intel® Iris® Xe Graphics with 80EU and 16GByte dual channel LPDDR4X 4266 MT/s memory down (Intel Tiger Lake). Industrial temperature range.		
conga-TC570r/i3-1115GRE-8G	050332	COM Express Type 6 Compact module based on Intel® Core™ i3-1115G4E 2-core processor with 2.2GHz up to 3.9GHz turbo boost, 6MB cache, Intel® UHD Graphics with 48EU and 8 GByte dual channel LPDDR4X 4266 MT/s memory down (Intel Tiger Lake). Industrial temperature range.		
conga-TC570r/6305E-4G	050320	COM Express Type 6 Compact module based on Intel® Celeron® 6305E 2-core processor with 1.8GHz, 4MB cache, Intel® UHD Graphics with 48EU and 4 GByte dual channel LPDDR4X 4266 MT/s memory down (Intel Tiger Lake). Commercial temperature range.		
conga-TC570/CSA-HP-B	050350	Standard active cooling solution for high performance COM Express module conga-TC570 with integrated heat pipes, 25.5mm overall heat sink height and integrated 12V fan. All standoffs are with 2.7mm bore hole.		
conga-TC570/CSA-HP-T	050351	Standard active cooling solution for high performance COM Express module conga-TC570 with integrated heat pipes, 25.5mm overall heat sink height and integrated 12V fan. All standoffs are M2.5mm thread.		
conga-TC570/CSP-HP-B	050352	Standard passive cooling solution for high performance COM Express module conga-TC570 with integrated heat pipes, 24.3mm overall heat sink height. All standoffs are with 2.7mm bore hole.		
conga-TC570/CSP-HP-T	050353	Standard passive cooling solution for high performance COM Express module conga-TC570 with integrated heat pipes, 24.3mm overall heat sink height. All standoffs are M2.5mm thread.		
conga-TC570/HSP-HP-B	050354	Standard heatspreader for high performance COM Express module conga-TC570 with integrated heat pipes, 11mm overall heat sink height. All standoffs are with 2.7mm bore hole.		
conga-TC570/HSP-HP-T	050355	Standard heatspreader for high performance COM Express module conga-TC570 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.		

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