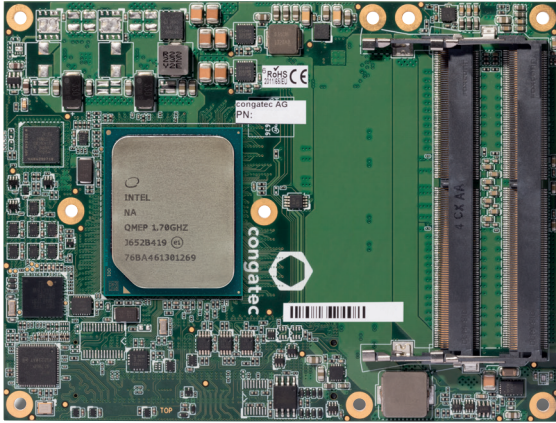


SERVER ON MODULE

conga-B7AC

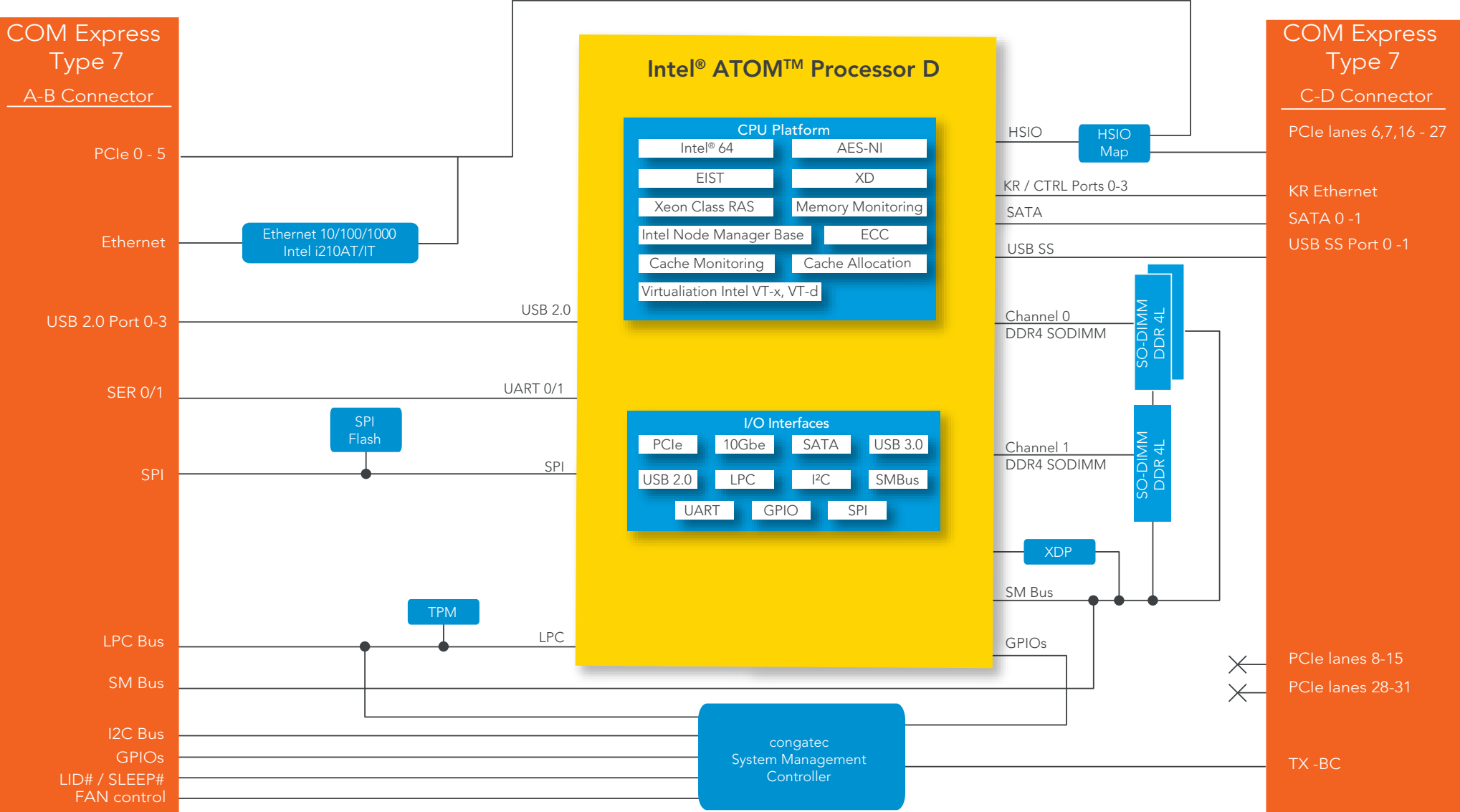


- COM Express Type 7
- Up to Intel® Atom™ C3958 with 16 Cores and 16MB Cache
- 4x 10 Gigabit Ethernet KR Interface
- 32 PCI Express lanes
- Industrial grade variants
- Server Class Features (RAS, QoS, Virtualization, Security, Manageability)



Formfactor	Formfactor COM Express® Basic (95 x 125 mm) Type 7 Connector Pinout																																											
CPU	Commercial versions <table border="1"> <tr> <td>Intel® Atom™ C3958</td> <td>2.0 GHz</td> <td>16 Cores</td> <td>16MB cache</td> <td>31W TDP</td> </tr> <tr> <td>Intel® Atom™ C3858</td> <td>2.0 GHz</td> <td>12 Cores</td> <td>12MB cache</td> <td>25W TDP</td> </tr> <tr> <td>Intel® Atom™ C3758</td> <td>2.2 GHz</td> <td>8 Cores</td> <td>16MB cache</td> <td>25W TDP</td> </tr> <tr> <td>Intel® Atom™ C3558</td> <td>2.2 GHz</td> <td>4 Cores</td> <td>8MB cache</td> <td>16W TDP</td> </tr> <tr> <td>Intel® Atom™ C3538</td> <td>2.1 GHz</td> <td>4 Cores</td> <td>8MB cache</td> <td>15W TDP</td> </tr> </table> Industrial versions <table border="1"> <tr> <td>Intel® Atom™ C3808</td> <td>2.0 GHz</td> <td>12 Cores</td> <td>12 MB cache</td> <td>24W TDP</td> </tr> <tr> <td>Intel® Atom™ C3708</td> <td>1.7 GHz</td> <td>8 Cores</td> <td>16 MB cache</td> <td>17W TDP</td> </tr> <tr> <td>Intel® Atom™ C3508</td> <td>1.5 GHz</td> <td>4 Cores</td> <td>8 MB cache</td> <td>11W TDP</td> </tr> </table>				Intel® Atom™ C3958	2.0 GHz	16 Cores	16MB cache	31W TDP	Intel® Atom™ C3858	2.0 GHz	12 Cores	12MB cache	25W TDP	Intel® Atom™ C3758	2.2 GHz	8 Cores	16MB cache	25W TDP	Intel® Atom™ C3558	2.2 GHz	4 Cores	8MB cache	16W TDP	Intel® Atom™ C3538	2.1 GHz	4 Cores	8MB cache	15W TDP	Intel® Atom™ C3808	2.0 GHz	12 Cores	12 MB cache	24W TDP	Intel® Atom™ C3708	1.7 GHz	8 Cores	16 MB cache	17W TDP	Intel® Atom™ C3508	1.5 GHz	4 Cores	8 MB cache	11W TDP
Intel® Atom™ C3958	2.0 GHz	16 Cores	16MB cache	31W TDP																																								
Intel® Atom™ C3858	2.0 GHz	12 Cores	12MB cache	25W TDP																																								
Intel® Atom™ C3758	2.2 GHz	8 Cores	16MB cache	25W TDP																																								
Intel® Atom™ C3558	2.2 GHz	4 Cores	8MB cache	16W TDP																																								
Intel® Atom™ C3538	2.1 GHz	4 Cores	8MB cache	15W TDP																																								
Intel® Atom™ C3808	2.0 GHz	12 Cores	12 MB cache	24W TDP																																								
Intel® Atom™ C3708	1.7 GHz	8 Cores	16 MB cache	17W TDP																																								
Intel® Atom™ C3508	1.5 GHz	4 Cores	8 MB cache	11W TDP																																								
DRAM	up to 3 SO-DIMM sockets for DDR4 memory modules up to 16 GByte each (48 GByte total) with 2400/2133 MT/s ECC and non-ECC supported																																											
Chipset	Integrated in SoC																																											
Ethernet	4x 10GbE with KR interface support																																											
I/O Interfaces	12x PCIe Gen3 8x PCIe Gen2 2x USB 3.0 4x USB 2.0 2x SATA III (6Gb/s) LPC SPI I²C bus (fast mode 400 kHz, multi-master) 2x UART SMBus																																											
congatec Board Controller	Multi Stage Watchdog non-volatile User Data Storage Manufacturing and Board Information Board Statistics I²C 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) Hash and RSA algorithms key lengths up to 2048 bits real random number generator																																											
Power Management	ACPI 5.0 with battery support																																											
Operating Systems	Windows 64 bit OS Microsoft® Windows Server 2016 Microsoft® Windows Server 2012 R2 Microsoft® Windows Server 2012 Microsoft® Windows Server 2008 R2 SP1 Microsoft® Windows 10 Enterprise Microsoft® Windows 8.1 64b Microsoft® Windows 7 64b	Open Source OS & Frameworks RHEL 6.6 & 7.1 SuSE 11 SP4 & 12 SP1 Fedora 22 Ubuntu 14.10 CentOS 6.6 & 7.1 FreeBSD Yocto v.2.0 Kernel 4.1	Real-Time OS Wind River VxWorks 7	Other VMware ESXi																																								
Power Consumption	see user's guide for full details CMOS Battery Backup																																											
Temperature	Industrial: Operating: -40 to +85°C Storage: -40 to +85°C 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 125 mm (3.74" x 4.92")																																											

conga-B7AC Block diagram



conga-B7AC | Order Information

Article	PN	Description
conga-B7AC/A-C3958	048200	COM Express Type 7 Basic module with Intel® Atom™ C3958 processor with 16 Cores, 2.0GHz core frequency, 16MB Cache and 2400 MT/s dual channel DDR4 memory interface for up to 48GB. Features four 10GbE KR interface ports. 31W TDP, commercial temperature range.
conga-B7AC/A-C3858	048201	COM Express Type 7 Basic module with Intel® Atom™ C3858 processor with 12 Cores, 2.0 GHz core frequency, 12MB Cache and 2400 MT/s dual channel DDR4 memory interface for up to 48GB. Features four 10GbE KR interface ports. 25W TDP, commercial temperature range.
conga-B7AC/A-C3758	048202	COM Express Type 7 Basic module with Intel® Atom™ C3758 processor with 8 Cores, 2.2 GHz core frequency, 16MB Cache and 2400 MT/s dual channel DDR4 memory interface for up to 48GB. Features four 10GbE KR interface ports. 25W TDP, commercial temperature range.
conga-B7AC/A-C3558	048203	COM Express Type 7 Basic module with Intel® Atom™ C3558 processor with 4 Cores, 2.2 GHz core frequency, 8MB Cache and 2133 MT/s dual channel DDR4 memory interface for up to 48GB. Features two 2.5GbE and two 10GbE KR interface ports. 16W TDP, commercial temperature range.
conga-B7AC/A-C3538	048204	COM Express Type 7 Basic module with Intel® Atom™ C3538 processor with 4 Cores, 2.1 GHz core frequency, 8MB Cache and 2133 MT/s dual channel DDR4 memory interface for up to 48GB. Features two 2.5GbE and two 10GbE KR interface ports. 15W TDP, commercial temperature range.
conga-B7AC/IA-C3808	048210	COM Express Type 7 Basic module with Intel® Atom™ C3808 processor with 12 Cores, 2.0 GHz core frequency, 12MB Cache and 2133 MT/s dual channel DDR4 memory interface for up to 48GB. Features four 10GbE KR interface ports. 24W TDP, industrial temperature range.
conga-B7AC/IA-C3708	048211	COM Express Type 7 Basic module with Intel® Atom™ C3708 processor with 8 Cores, 1.7 GHz core frequency, 16MB Cache and 2133 MT/s dual channel DDR4 memory interface for up to 48GB. Features four 10GbE KR interface ports. 17W TDP, industrial temperature range.
conga-B7AC/IA-C3508	048213	COM Express Type 7 Basic module with Intel® Atom™ C3508 processor with 4 Cores, 1.5 GHz core frequency, 8MB Cache and 1866 MT/s dual channel DDR4 memory interface for up to 48GB. Features four 2.5GbE KR interface ports. 11W TDP, industrial temperature range.
DDR4-SODIMM-2400 (4GB)	068790	DDR4 SODIMM memory module with 2400 MT/s and 4GB RAM
DDR4-SODIMM-2400 (8GB)	068791	DDR4 SODIMM memory module with 2400 MT/s and 8GB RAM
DDR4-SODIMM-2400 (16GB)	068792	DDR4 SODIMM memory module with 2400 MT/s and 16GB RAM

Accessories

conga-X7/EVAL	065420	Evaluation Carrier Board for COM Express Type 7 modules with up to four 10GbE SFP+ fiber/copper ports implemented via Intel Cortina 10GbE Phy's. The carrier features an Aspeed AST2500 Board Management Controller (BMC).
COM Express Connector AB, High Speed, Type 7	41500615	COM Express Connector AB, High Speed (10Gbs), Type 7