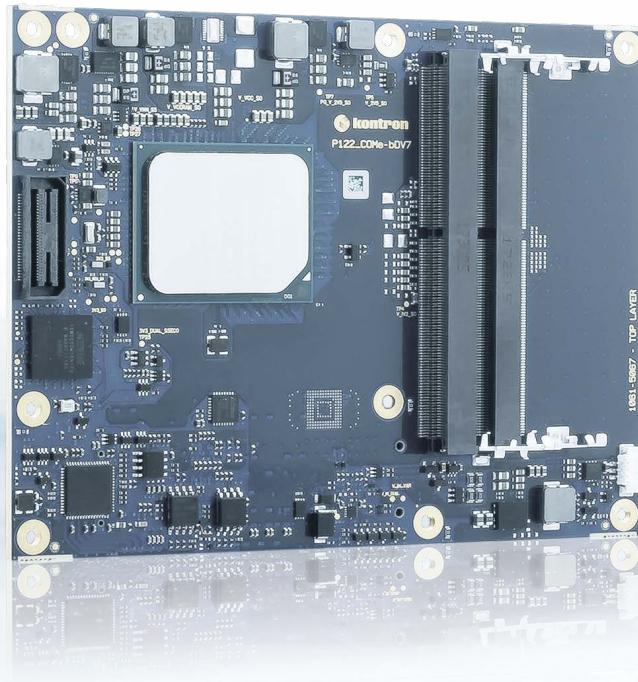


# COMe-bDV7

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## COM Express® Basic Type 7 with Intel Atom® C3000 SoC Processors

- ▶ Entry level server-grade platform
- ▶ Quad 10 GbE interfaces
- ▶ High-speed connectivity PCIe 3.0, SATA3, USB 3.0
- ▶ Industrial grade versions

POSSIBILITIES START HERE

## ▶ TECHNICAL INFORMATION

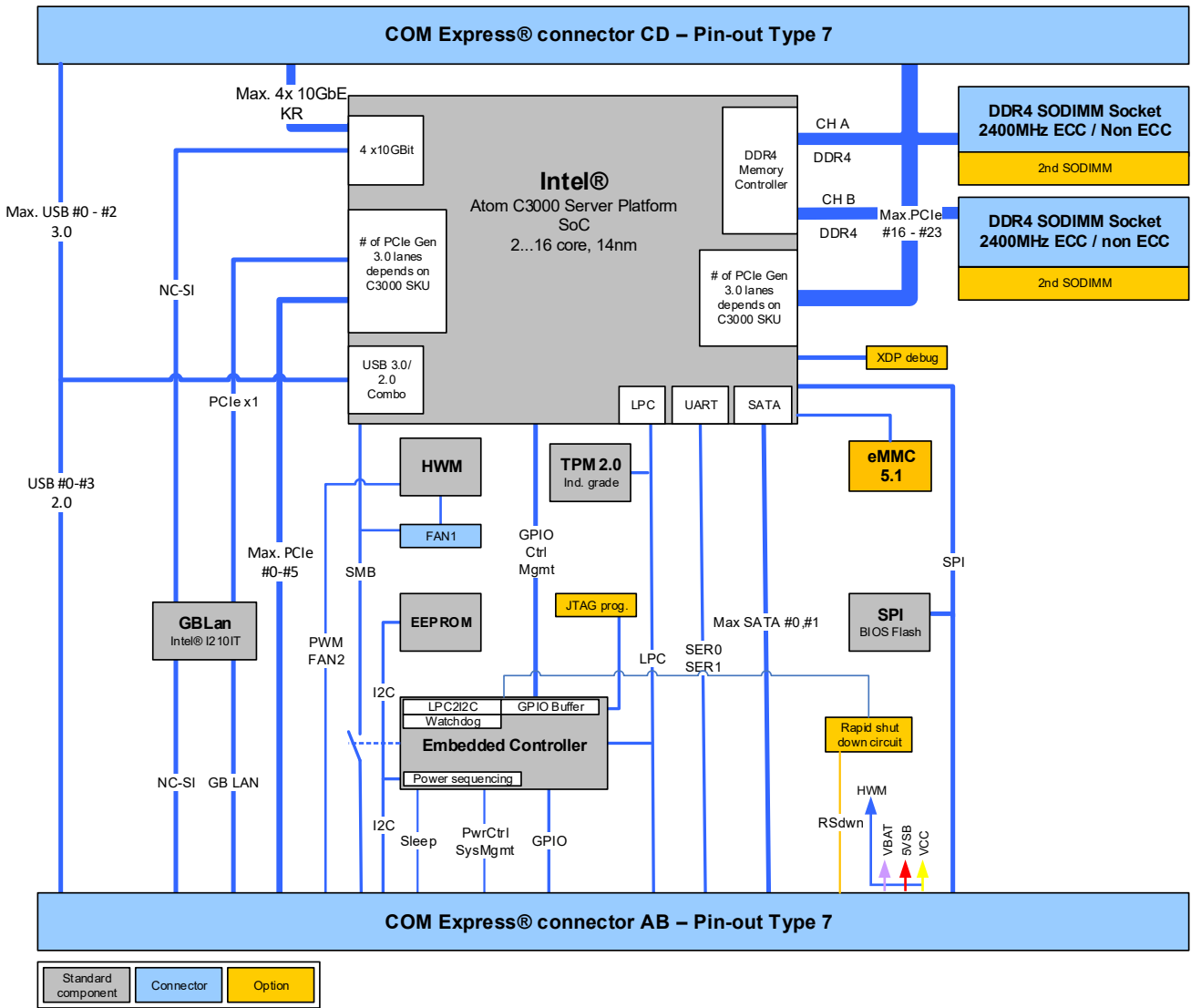
COMPLIANCE	COM Express® Basic, Pin-out Type 7 - COM.0 R3.0
DIMENSIONS (H x W)	95 mm x 125 mm
CPU (SoC)	Commercial temperature: Intel® Atom® Processor C3958, 16C, 2.0GHz, 31W TDP Intel® Atom® Processor C3858, 12C, 2.0GHz, 25W TDP Intel® Atom® Processor C3758, 8C, 2.2GHz, 25W TDP Intel® Atom® Processor C3558, 4C, 2.2GHz, 16W TDP  Industrial temperature: Intel® Atom® Processor C3808, 12C, 2.0 GHz, 25 W TDP Intel® Atom® Processor C3708, 8C, 1.7 GHz, 17 W TDP Intel® Atom® Processor C3508, 4C, 1.5 GHz, 11 W TDP Intel® Atom® Processor C3308, 2C, 1.6 GHz, 9 W TDP
MAIN MEMORY	2x DDR4 SODIMM for up to 64 GByte ECC / non ECC on request: 4x DDR4 SODIMM for up to 128 GByte ECC / non ECC
ETHERNET CONTROLLER	Intel® I210IT Intel® Quad 10GbE LAN integrated in SoC
ETHERNET	1x 10/100/1000 MBit Ethernet Up to 4x 10GbE Interfaces (KR) – depending on C3000 SKU NC-SI support
STORAGE	Up to 2x SATA3, 6Gb/s
FLASH ONBOARD	eMMC 5.1 up to 256GB TLC (build option)
PCI Express®	Up to 14x PCIe 3.0 lanes - depending on C3000 SKU
USB	Up to 3x USB 3.0, 4x USB 2.0
SERIAL	2x serial interface (RX/TX only)
COMMON FEATURES	SPI, LPC, SMB, Fast I <sup>2</sup> C, Staged Watchdog, RTC
ON REQUEST	eMMC size, additional 2 SODIMM sockets for overall 4 SODIMM sockets
POWER MANAGEMENT	ACPI 4.0
POWER SUPPLY	ATX, 8.5 V – 20 V Wide Range, Single Supply Power
SPECIAL FEATURES	TPM 2.0
HUMIDITY	93 % relative at 40 °C, non-condensing (according to IEC 60068-2-78)
TEMPERATURE	Commercial grade Version Temperature 0 °C - 60 °C, Industrial grade Versions -40 °C to +85 °C
BIOS	AMI UEFI
OPERATING SYSTEMS	Linux, Windows® Server 2012/2016
SUPPORTED MODULES	COMe-bDV7 xxxxx commercial grade COMe-bDV7 E2 xxxxx industrial grade

## ▶ CPU VARIANTS

PROCESSOR NUMBER	TDP	CORES	THREADS	CACHE	BASE FREQ	MAX TURBO FREQ	MEM-CHANNEL	MEM-FREQ	HSIO LANES	QAT*	EXTEND TEMP
C3558	16 W	4	4	8 MByte	2.2 GHz	-	2	2133	12	yes	no
C3758	25 W	8	8	16 MByte	2.2 GHz	-	2	2400	20	yes	no
C3858	25 W	12	12	12 MByte	2.0 GHz	-	2	2400	20	yes	no
C3958	31 W	16	16	16 MByte	2.0 GHz	-	2	2400	20	yes	no
C3308	9.5 W	2	2	4 MByte	1.6 GHz	2.1 GHz	1	1866	6	yes	yes
C3508	11.5 W	4	4	8 MByte	1.6 GHz	-	2	1866	8	yes	yes
C3708	17 W	8	8	16 MByte	1.7 GHz	-	2	2133	20	yes	yes
C3808	25 W	12	12	12 MByte	2.0 GHz	-	2	2133	20	yes	yes

\* On the COMe-bDV7 QAT is disabled by default, please contact tech support for a custom UEFI firmware

► BLOCK DIAGRAM



► VARIANTS

PART NO.	CPU	1GbE	SoC LAN		HSIO	HSIO-USAGE Default # of PCIe lanes				HSIO-USAGE Max # of PCIe lanes*				FLASH eMMC	OP. TEMP.
			PORT 0 PORT 1	PORT 2 PORT 3		PCIe	USB 3.0	SATA	1GbE	PCIe	USB 3.0	SATA	1GbE		
68006-0000-58-5	C3558	I210IT	10GBASE-KR	2.5GBASE-X	12	7	2	2	1	12	0	0	0	no	0 °C - 60 °C
68006-0000-58-7	C3758	I210IT	10GBASE-KR	10GBASE-KR	20	14	3	2	1	same as default				no	0 °C - 60 °C
68006-0000-58-8	C3858	I210IT	10GBASE-KR	10GBASE-KR	20	14	3	2	1	same as default				no	0 °C - 60 °C
68006-0000-58-9	C3958	I210IT	10GBASE-KR	10GBASE-KR	20	14	3	2	1	same as default				no	0 °C - 60 °C
68007-0000-08-3	C3308	I210IT	2.5GBASE-X	2.5GBASE-X	6	3	0	2	1	6	0	0	0	no	-40 °C - 85 °C
68007-0000-08-5	C3508	I210IT	2.5GBASE-X	2.5GBASE-X	8	4	1	2	1	8	0	0	0	no	-40 °C - 85 °C
68007-0000-08-7	C3708	I210IT	10GBASE-KR	10GBASE-KR	20	14	3	2	1	same as default				no	-40 °C - 85 °C
68007-0000-08-8	C3808	I210IT	10GBASE-KR	10GBASE-KR	20	14	3	2	1	same as default				no	-40 °C - 85 °C

The table above shows the default LAN configuration. A LAN configuration different from the shown default requires a different part no. Please contact your sales representative for other versions

\* Please contact tech support for custom UEFI firmware

## ► CARRIER

ARTICLE	PART NO.	DESCRIPTION
COMe EVAL CARRIER T7	68300-0000-00-0	COM Express® Eval Carrier Type 7
ADA-COMe-T7 4X10G KR-RJ45 - DEV-TOOL	68300-0000-01-0	Adapter Card with 4x RJ45 ports for use with COM Express® Eval Carrier Type 7 68300-0000-00-0
COMe EVAL CARRIER2 T7	68301-0000-00-8	COM Express® Eval Carrier2 Type 7
ADA-COMe-T7-G2 4X 10G DAC - DEV-TOOL	68301-0000-04-4	Adaptercard with 4x DAC for COMe Eval Carrier2 68301-0000-00-8
ADA-COMe-T7-G2 4x 10G SFP+ - DEV-TOOL	68301-0000-03-4	Adaptercard 4x SFP with Inphi PHY CS4223 for COMe Eval Carrier2 68301-0000-00-8
ADA-COMe-T7-G2 4x 10G RJ45 - DEV-TOOL	68301-0000-01-4	Adaptercard 4x RJ45 with 2x X557-AT2 PHY for COMe Eval Carrier2 68301-0000-00-8

## ► COOLING

ARTICLE	PART NO.	DESCRIPTION
HSP COMe-bDV7 (E2) THREAD	68007-0000-99-0	Heatspreader for COMe-bDV7 commercial and E2, threaded mounting holes
HSP COMe-bDV7 (E2) THROUGH	68007-0000-99-1	Heatspreader for COMe-bDV7 commercial and E2, through holes
HSK COMe-BASIC ACTIVE (W/O HSP)	38025-0000-99-0C05	Active Cooler for COMe-bxL6/bDV7 to be mounted on HSP
HSK COMe-BASIC PASSIVE (W/O HSP)	38025-0000-99-0C06	Passive Cooler for COMe-bxL6/bDV7 to be mounted on HSP

## ► MEMORY

PART NO.	MIN. SPEC.	SIZE	ECC/NON-ECC	OP. TEMPERATURE
97020-0424-COM7	DDR4-2400	4 GByte	No ECC	0 °C to +60 °C
97020-0824-COM7	DDR4-2400	8 GByte	No ECC	0 °C to +60 °C
97020-1624-COM7	DDR4-2400	16 GByte	No ECC	0 °C to +60 °C
97020-3224-COM7	DDR4-2400	32 GByte	No ECC	0 °C to +60 °C
97021-0424-COM7	DDR4-2400	4 GByte	No ECC	-40 °C to +85 °C
97021-0824-COM7	DDR4-2400	8 GByte	No ECC	-40 °C to +85 °C
97021-1624-COM7	DDR4-2400	16 GByte	No ECC	-40 °C to +85 °C
97021-3224-COM7	DDR4-2400	32 GByte	No ECC	-40 °C to +85 °C
97030-0424-COM7	DDR4-2400	4 GByte	ECC	0 °C to +60 °C
97030-0824-COM7	DDR4-2400	8 GByte	ECC	0 °C to +60 °C
97030-1624-COM7	DDR4-2400	16 GByte	ECC	0 °C to +60 °C
97030-3224-COM7	DDR4-2400	32 GByte	ECC	0 °C to +60 °C
97031-0424-COM7	DDR4-2400	4 GByte	ECC	-40 °C to +85 °C
97031-0824-COM7	DDR4-2400	8 GByte	ECC	-40 °C to +85 °C
97031-1624-COM7	DDR4-2400	16 GByte	ECC	-40 °C to +85 °C
97031-3224-COM7	DDR4-2400	32 GByte	ECC	-40 °C to +85 °C

## ► GLOBAL HEADQUARTERS

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