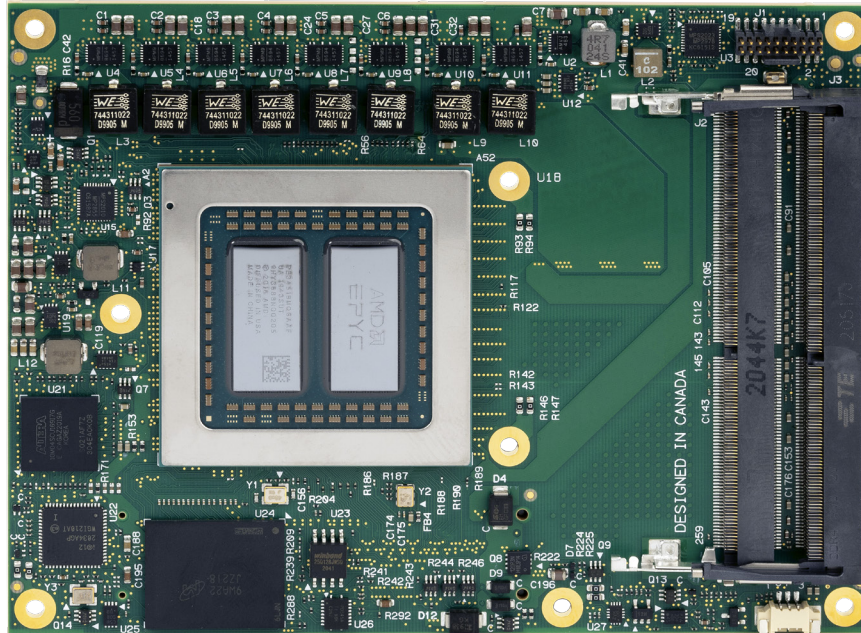


COMe-bEP7 (E2)



COM Express® Basic Type 7 with AMD EPYC™ Embedded 3000 SoC Processors

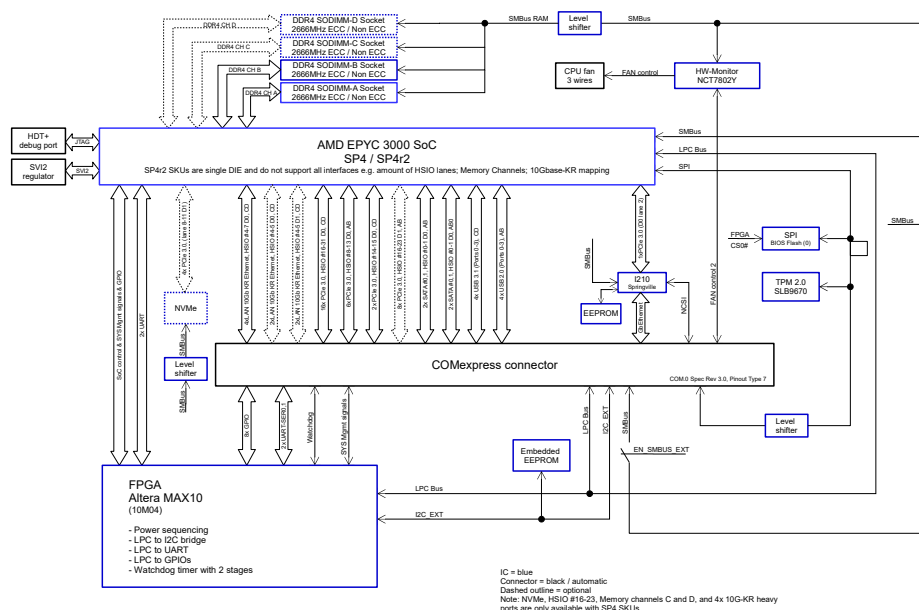
- ▶ Single-Die SP4r2 (up to 8 cores)
- ▶ Dual-Die SP4 (up to 16 core) processors
- ▶ Quad 10GbE interfaces
- ▶ 4x SODIMM sockets (up to 128 GByte DDR4 memory) on request
- ▶ Industrial grade versions



Technical Information

	SP4R2 (SINGLE-DIE)	SP4 (DUAL-DIE)
COMPLIANCE	COM Express® Basic, Pin-out Type 7	
DIMENSIONS (H X W X D)	95 x 125 mm	
CPU	Commercial Temperature: AMD E3101 4C/4T, 35 W TDP, 2.1 GHz (2.9 GHz) AMD E3151 4C/8T, 45 W TDP, 2.7 GHz (2.9 GHz) AMD E3201 8C/8T, 30 W TDP, 1.5 GHz (3.1 GHz) AMD E3251 8C/16T, 55 W TDP, 2.5 GHz (3.1 GHz) Industrial Temperature: AMD E3255 8C/16T, 30-55 W TDP, 2.0/2.5 GHz (3.1 GHz)	AMD E3351 12C/24T, 65-80 W TDP, 1.9 GHz (3.0 GHz) AMD E3451 16C/32T, 85-100 W TDP, 2.45 GHz (3.0 GHz)
MAIN MEMORY	2x DDR4 SODIMM for up to 64 GByte non-ECC/ECC memory	2x DDR4 SODIMM for up to 64 GByte non-ECC/ECC memory 4x DDR4 SODIMM for up to 128 GByte on request
ETHERNET CONTROLLER	Internet i210	
HARD DISK	2x SATA	
PCI EXPRESS® / PCI SUPPORT	24x PCIe Gen 3.0	32x PCIe Gen 3.0
USB	4x USB 3.1, 4x USB 2.0	
SERIAL	2x serial interface	
COMMON FEATURES	SPI Flash, LPC, SMB, Dual Staged Watchdog, RTC	
ON REQUEST		NVMe Support
POWER MANAGEMENT	OS ACPI PM support for Critical Shutdown	
POWER SUPPLY	ATX, 8.5V- 20 V Wide Range Single Supply	
SPECIAL FEATURES	TPM	
HUMIDITY	93 % relative Humidity at 40 °C, non-condensing	
TEMPERATURE	Commercial Grade Version: 0 °C to 60 °C Industrial Grade Version: -40 °C to 85 °C	
BIOS	AMI UEFI	
OPERATING SYSTEM	Linux x64 – Ubuntu Windows Server x64 2016	
SUPPORTED MODULES	COMe-bEP7 xxxxx commercial grade COMe-bEP7 E2 xxxxx industrial grade	

Block Diagram



CPU Variants

	SP4R2					SP4	
PROCESSOR NUMBER	E3101	E3151	E3201	E3251	E3255	E3351	E3451
TDP	35 W	45 W	30 W	55 W	25-55 W	65-80 W	85-100 W
CORES	4	4	8	8	8	12	16
THREADS	4	8	8	16	16	32	32
CACHE	8 MByte	16 MByte	16 MByte	16 MByte	16 MByte	32 MByte	32 MByte
BASE FREQ	2.1 GHz	2.7 GHz	1.5 GHz	2.5 GHz	2.0/2.5 GHz	1.9 GHz	2.45 GHz
MAX TURBO FREQ	2.9 GHz	2.9 GHz	3.1 GHz	3.1 GHz	3.1 GHz	3.0 GHz	3.0 GHz
MEMORY CHANNEL	2	2	2	2	2	2	2
SATA	8	8	8	8	8	16	16
EXTEND TEMP	no	no	no	no	yes	no	no

Variants

PART NO.	DESCRIPTION	CPU
SP4r2		
68010-0000-01-1*	COMe-bEP7 E3101	E3101
68010-0000-51-1*	COMe-bEP7 E3151	E3151
68010-0000-01-2*	COMe-bEP7 E3201	E3201
68010-0000-51-2	COMe-bEP7 E3251	E3251
68011-0000-55-2	COMe-bEP7 E2 E3255	E3255
SP4		
68010-0000-51-3	COMe-bEP7 E3351	E3351
68010-0000-51-4	COMe-bEP7 E3451	E3451
68010-0000-61-3	COMe-bEP7 3351 with 4 SODIMM sockets	E3351
68010-0000-61-4	COMe-bEP7 E3451 with 4 SODIMM sockets	E3451

*only available on request

Carrier

ARTICLE	PART NO.	DESCRIPTION
COM EXPRESS® EVAL CARRIER TYPE 7	68300-0000-00-0	
COM EXPRESS® EVAL CARRIER2 T7	68301-0000-00-8	COMe Eval Carrier T7 G2-8, 8 mm stack height, support of PCIe Gen3
COM EXPRESS® EVAL CARRIER2 T7	68301-0001-00-8	COMe Eval Carrier T7 G2-8, 8 mm stack height, support of PCIe Gen4

Cooling

ARTICLE	PART NO.
HSP COME-BEP7 THREADED	68010-0000-99-0
HSP COME-BEP7 THROUGH	68010-0000-99-1

Memory

PART NO.	MIN. SPEC.	SIZE	ECC/NON-ECC	OP. TEMPERATURE
97020-0827-BEP7*	DDR4-2666	8 GByte	non-ECC	0 °C - 60 °C
97020-1627-BEP7*	DDR4-2666	16 GByte	non-ECC	0 °C - 60 °C
97020-3227-BEP7*	DDR4-2666	32 GByte	non-ECC	0 °C - 60 °C
97021-0827-BEP7*	DDR4-2666	8 GByte	non-ECC	-40 °C - 85 °C
97021-1627-BEP7*	DDR4-2666	16 GByte	non-ECC	-40 °C - 85 °C
97021-3227-BEP7*	DDR4-2666	32 GByte	non-ECC	-40 °C - 85 °C
97030-0827-BEP7	DDR4-2666	8 GByte	ECC	0 °C - 60 °C
97030-1627-BEP7	DDR4-2666	16 GByte	ECC	0 °C - 60 °C
97030-3227-BEP7	DDR4-2666	32 GByte	ECC	0 °C - 60 °C
97031-0827-BEP7	DDR4-2666	8 GByte	ECC	-40 °C - 85 °C
97031-1627-BEP7	DDR4-2666	16 GByte	ECC	-40 °C - 85 °C
97031-3227-BEP7	DDR4-2666	32 GByte	ECC	-40 °C - 85 °C

Accessories

PART NUMBER	DESCRIPTION
Mounting	
38017-0000-00-5	COMe Mount KIT 5 mm 1 set
38017-0100-00-5	COMe Mount KIT 5 mm 100 sets
38017-0000-00-0	COMe Mount KIT 8 mm 1 set
38017-0100-00-0	COMe Mount KIT 8 mm 100 sets
Adapter/Cables	
38019-0000-00-0	ADA-COMe-Height-dua
96079-0000-00-0	KAB-HSP 200 mm

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