

Memory for Data Centers

SMART's Memory Solutions Provide Critical Competitive Advantages

Memory expansion for in-memory database applications utilizing CXL® Technology

Increases memory bandwidth and capacity

- Large amounts of memory accessed through the CXL interface eliminate conventional server bottlenecks.
- Eliminates stranded memory by dynamically configuring memory to those workloads that need it.
- New E3.S Memory Module (XMM) and Add in Card (AIC) options utilizing CXL technology

<https://www.smartm.com/product/advanced-memory/cxl-high-speed-cpu-interconnect>

Zefr ZDIMMs for AI and In Memory Database Applications



Significantly reduce downtime by using highly reliable memory modules

- Comprehensive 5-part test process; temperature, speed, load, system, and time
- Zefr testing emulates the most strenuous use cases
- Proven long-term reliability

<https://www.smartm.com/product/list/zefr-zdimm>

High Density Memory - RDIMMs

Deliver massive computing power for HPC, AI, grid and cloud workloads

- Ideal for data centers requiring large amounts of server memory
- Up to 256GB DDR4 RDIMMs
- Up to 256GB DDR5 RDIMMs

www.smartm.com/rdimms

Delivering New Tiers of Performance by enabling CXL

New interconnect technology for high-speed, low-latency cache coherent access to data via serial-attached memory modules (XMMs, AICs)

- Enables new solution architectures and form factors for delivering higher levels of performance (high-bandwidth, low latency)
- SMART is providing enablement support for OEMs interested in CXL

<https://www.smartm.com/product/advanced-memory/cxl-high-speed-cpu-interconnect>

SMTL - SMART Memory Test Lab



Extensive memory qualification services, capabilities and experience

- Minimize qualification costs and resources
- Save engineering time and resources
- Shorten product launch cycles
- Use SMART engineering resources to help solve problems
- Maintain an uninterrupted supply chain of qualified memory

<https://www.smartm.com/technology/SMTL>

CXL AIC Ordering Information

4-DIMM FHHL AIC 1W		
SMART Part Number	Description	Configuration
STXPLXXXGMC4RD5	CXL 2.0, PCIe x16, 0GB, DDR5, AIC FHHL 1W	AIC w/o RDIMM
STXPL128GMC4RD5	CXL 2.0, PCIe x16, 128GB, DDR5, FHHL 1W	AIC w/ 4x32GB RDIMM
STXPL256GMC4RD5	CXL 2.0, PCIe x16, 256GB, DDR5, FHHL 1W	AIC w/ 4x64GB RDIMM
STXPL512GMC4RD5	CXL 2.0, PCIe x16, 512GB, DDR5, FHHL 1W	AIC w/ 4x128GB RDIMM
8-DIMM FHHL AIC 2W		
SMART Part Number	Description	Configuration
STXPLXXXGAA8RD5	CXL 2.0, PCIe x16, 0GB, DDR5, FHHL 2W	AIC w/o RDIMM
STXPL256GAA8RD5	CXL 2.0, PCIe x16, 256GB, DDR5, FHHL 2W	AIC w/ 8x32GB RDIMM
STXPL512GAA8RD5	CXL 2.0, PCIe x16, 512GB, DDR5, FHHL 2W	AIC w/ 8x64GB RDIMM
STXPL001TAA8RD5	CXL 2.0, PCIe x16, 1TB, DDR5, FHHL 2W	AIC w/ 8x128GB RDIMM
E3.S 2T CMM		
SMART Part Number	Description	Configuration
STXAB96GRMCF4S40HM	CXL 2.0 96GB E3.S 2T CMM	96GB on board DDR5 4800, CXL x16
STXBB96GMC4S40HM	CXL 2.0 96GB E3.S 2T CMM	96GB on board DDR5 4800, CXL x8
STXBB12GMC4S40MB	CXL 2.0 128GB E3.S 2T CMM	128GB on board DDR5 4800, CXL x8

DDR5 Ordering Information

288-PIN - DDR5 Zefr ZDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Comp Config	Speed	Voltage	Temp*
SRZAG8RD5846-SB	128GB	31.25	16Gb x80	4Gx4	4800MT/s	1.1V	0°C to +70°C
SRZHG8RD5648-SP	96GB	31.25	12Gb x80	6Gx4	5600MT/s	1.1V	0°C to +70°C
SRZ8G8RD5448-SP	64GB	31.25	8Gb x80	4Gx4	5600MT/s	1.1V	0°C to +70°C
SRZ8G8RD5448-MD	64GB	31.25	8Gb x80	4Gx4	5600MT/s	1.1V	0°C to +70°C
STZ8G8RD5445-HA	64GB	31.25	8Gb x80	4Gx4	4800MT/s	1.1V	0°C to +70°C
SRB8G8RD5445-SB	64GB	31.25	8Gb x80	4Gx4	4800MT/s	1.1V	0°C to +70°C
SRZ4G8RD5448-SP	32GB	31.25	4Gb x80	4Gx4	5600MT/s	1.1V	0°C to +70°C
SRZ4G8RD5288-SP	32GB	31.25	4Gb x80	2Gx8	5600MT/s	1.1V	0°C to +70°C
SRZ4G8RD5445-SB	32GB	31.25	4Gb x80	4Gx4	4800MT/s	1.1V	0°C to +70°C
SRB4G8RD5445-SB	32GB	31.25	4Gb x80	4Gx4	4800MT/s	1.1V	0°C to +70°C
SRZ2G8RD5285-SB	16GB	31.25	2Gb x80	2Gx8	4800MT/s	1.1V	0°C to +70°C
288-PIN - DDR5 RDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Comp Config	Speed	Voltage	Temp*
SRBG8RD544H-SB	256GB	31.25	32Gb x80	16Gx4	5600MT/s	1.1V	0°C to +70°C
SRAG8RD5848-MB	128GB	31.25	16Gb x80	8Gx4	5600MT/s	1.1V	0°C to +70°C
STAG8RD544H-HA	128GB	31.25	16Gb x80	8Gx4	5600MT/s	1.1V	0°C to +70°C
SRAG8RD5846-SB	128GB	31.25	16Gb x80	4Gx4	4800MT/s	1.1V	0°C to +70°C
SRHG8RD5648-SP	96GB	31.25	12Gb x80	6Gx4	5600MT/s	1.1V	0°C to +70°C
SRHG8RD5648-MD	96GB	31.25	12Gb x80	6Gx4	5600MT/s	1.1V	0°C to +70°C
STHG8RD5648-HM	96GB	31.25	12Gb x80	6Gx4	5600MT/s	1.1V	0°C to +70°C
SRHG8RD5645-MD	96GB	31.25	12Gb x80	6Gx4	4800MT/s	1.1V	0°C to +70°C
SRHG8RD5645-SB	96GB	31.25	12Gb x80	6Gx4	4800MT/s	1.1V	0°C to +70°C
STHG8RD5645-HM	96GB	31.25	12Gb x80	6Gx4	4800MT/s	1.1V	0°C to +70°C
SR8G8RD5448-SP	64GB	31.25	8Gb x80	4Gx4	5600MT/s	1.1V	0°C to +70°C
SR8G8RD5448-MD	64GB	31.25	8Gb x80	4Gx4	5600MT/s	1.1V	0°C to +70°C
ST8G8RD5448-HA	64GB	31.25	8Gb x80	4Gx4	5600MT/s	1.1V	0°C to +70°C
SRI8G8RD5445-SB	64GB	31.25	8Gb x80	4Gx4	4800MT/s	1.1V	-40°C to +85°C
SR8G8RD5445-SB	64GB	31.25	8Gb x80	4Gx4	4800MT/s	1.1V	0°C to +70°C

* Reflects Operating Ambient Temperature

DDR5 Ordering Information

288-PIN - DDR5 RDIMM Continued							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp*
ST8G8RD5445-HA	64GB	31.25	8Gb x80	4Gx4	4800MT/s	1.1V	0°C to +70°C
SR6G8RD5648-SP	48GB	31.25	6Gb x80	6Gx4	5600MT/s	1.1V	0°C to +70°C
SR6G8RD5645-SB	48GB	31.25	4Gb x80	6Gx4	4800MT/s	1.1V	0°C to +70°C
ST6G8RD5645-HM	48GB	31.25	6Gb x80	6Gx4	4800MT/s	1.1V	0°C to +70°C
SR6G8RD5385-SB	48GB	31.25	6Gb x80	3Gx8	4800MT/s	1.1V	0°C to +70°C
SR4G8RD5448-SP	32GB	31.25	4Gb x80	4Gx4	5600MT/s	1.1V	0°C to +70°C
SR4G8RD5448-MD	32GB	31.25	4Gb x80	4Gx4	5600MT/s	1.1V	0°C to +70°C
ST4G8RD5448-HA	32GB	31.25	4Gb x80	4Gx4	5600MT/s	1.1V	0°C to +70°C
SR4G8RD5288-SP	32GB	31.25	4Gb x80	2Gx8	5600MT/s	1.1V	0°C to +70°C
ST4G8RD5288-HA	32GB	31.25	4Gb x80	2Gx8	5600MT/s	1.1V	0°C to +70°C
SRI4G8RD5445-SB	32GB	31.25	4Gb x80	4Gx4	4800MT/s	1.1V	-40°C to +85°C
SR4G8RD5445-SB	32GB	31.25	4Gb x80	4Gx4	4800MT/s	1.1V	0°C to +70°C
SRI4G8RD5285-SB	32GB	31.25	4Gb x80	2Gx8	4800MT/s	1.1V	-40°C to +85°C
SR4G8RD5285SB	32GB	31.25	4Gb x80	2Gx8	4800MT/s	1.1V	0°C to +70°C
SR4G8RD5285-SB	32GB	31.25	4Gb x80	2Gx8	4800MT/s	1.1V	0°C to +70°C
ST3G8RD5385-HM	24GB	31.25	3Gb x80	3Gx8	4800MT/s	1.1V	0°C to +70°C
SR2G8RD5288-MD	16GB	31.25	2Gb x80	2Gx8	5600MT/s	1.1V	0°C to +70°C
ST2G8RD5288-HA	16GB	31.25	2Gb x80	2Gx8	5600MT/s	1.1V	0°C to +70°C
SR2G8RD5285-SB	16GB	31.25	2Gb x80	2Gx8	4800MT/s	1.1V	0°C to +70°C

* Reflects Operating Ambient Temperature

DDR4 Ordering Information

288-PIN - DDR4 Zefr ZDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Comp Config	Speed	Voltage	Temp*
SRZ1637RD440465-SM	128GB	31.25	16Gb x72	8Gx4	3200MT/s	1.2V	0°C to +70°C
SRZ8197RD440425-SC	64GB	31.25	8Gb x72	4Gx4	3200MT/s	1.2V	0°C to +70°C
SRZ4097RD440425-SC	32GB	31.25	4Gb x72	4Gx4	3200MT/s	1.2V	0°C to +70°C
SRZ4097RD420825-SC	32GB	31.25	4Gb x72	2Gx8	3200MT/s	1.2V	0°C to +70°C
STB4097RD420425-SE	32GB	31.25	4Gb x72	2Gx4	3200MT/s	1.2V	0°C to +70°C
STB4097RD420425-MR	32GB	31.25	4Gb x72	2Gx4	3200MT/s	1.2V	0°C to +70°C
SRZ2047RD410825-SE	16GB	31.25	2Gb x72	1Gx8	3200MT/s	1.2V	0°C to +70°C
STB2047RD420425-SE	16GB	31.25	2Gb x72	2Gx4	3200MT/s	1.2V	0°C to +70°C

288-PIN - DDR4 RDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Comp Config	Speed	Voltage	Temp*
ST3277RD440465-SM	256GB	31.25	32Gb x72	4Gx4	3200MT/s	1.2V	0°C to +70°C
SR3277RD440444-SM1	256GB	31.25	32Gb x72	4Gx4	2933MT/s	1.2V	0°C to +70°C
ST1637RD440465-SM	128GB	31.25	16Gb x72	4Gx4	3200MT/s	1.2V	0°C to +70°C
ST8197RD440425-SC	64GB	31.25	8Gb x72	4Gx4	3200MT/s	1.2V	0°C to +70°C
ST8197RD440425-MF	64GB	31.25	8Gb x72	4Gx4	3200MT/s	1.2V	0°C to +70°C
ST8197RD440425-HD	64GB	30.75	8Gb x72	4Gx4	3200MT/s	1.2V	0°C to +70°C
SRI8197RD440425-SC	64GB	31.25	8Gb x72	4Gx4	3200MT/s	1.2V	-40°C to +85°C
STT4097RD420825MF	32GB	31.25	4Gb x72	2Gx8	3200MT/s	1.2V	-40°C to +85°C
STI4097RD420825MF	32GB	31.25	4Gb x72	2Gx8	3200MT/s	1.2V	-40°C to +85°C
SRI4097RD420825-SC	32GB	31.25	4Gb x72	2Gx8	3200MT/s	1.2V	-40°C to +85°C
ST4097RD420825SC	32GB	31.25	4Gb x72	2Gx8	3200MT/s	1.2V	0°C to +70°C
SR4097RD420825-SC	32GB	31.25	4Gb x72	2Gx8	3200MT/s	1.2V	0°C to +70°C
ST4097RD440425-MF	32GB	31.25	4Gb x72	4Gx4	3200MT/s	1.2V	0°C to +70°C

* Reflects Operating Ambient Temperature

DDR4 Ordering Information

288-PIN - DDR4 RDIMM Continued							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp*
SR4097RD440425-SC	32GB	31.25	4Gb x72	4Gx4	3200MT/s	1.2V	0°C to +70°C
SRI4097RD420425-SE	32GB	31.25	4Gb x72	2Gx4	3200MT/s	1.2V	-40°C to +85°C
ST4097RD420425-SE	32GB	31.25	4Gb x72	2Gx4	3200MT/s	1.2V	0°C to +70°C
ST4097RD420425-MR	32GB	31.25	4Gb x72	2Gx4	3200MT/s	1.2V	0°C to +70°C
ST4097RD420425-HE	32GB	31.25	4Gb x72	2Gx4	3200MT/s	1.2V	0°C to +70°C
ST2047RD420425-HE	16GB	31.25	2Gb x72	2Gx4	3200MT/s	1.2V	0°C to +70°C
ST2047RD420825MF	16GB	31.25	2Gb x72	2Gx8	3200MT/s	1.2V	0°C to +70°C

288-PIN - DDR4 Value LRDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp*
SR1637LR440425-SD	128GB	31.25	16Gb x72	8Gx4	3200MT/s	1.2V	0°C to +70°C

* Reflects Operating Ambient Temperature



For more information, please visit: www.smartm.com

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Headquarters/North America:

T: (+1) 800-956-7627 • T: (+1) 510-623-1231

F: (+1) 510-623-1434 • E: info@smartm.com

Latin America:

T: (+55) 11 4417-7200 • E: sales.br@smartm.com

Asia/Pacific:

T: (+65) 6678-7670 • E: sales.asia@smartm.com

EMEA:

T: (+44) 0 7826-064-745 • E: sales.euro@smartm.com

Customer Service:

T: (+1) 510-623-1231 • E: customers@smartm.com