

# Mini-DIMM

SMART Modular Technologies' DDR4 and DDR3 Mini-DIMM memory modules are capable of operating at high data transfer rates within a small form factor. The advantage of Mini-DIMMs is their versatility across many different applications such as networking, telecom, industrial, and storage.

Mini-DIMMs are designed with additional power and ground pins compared to SO-DIMMs for reliable operation in telecom, networking and industrial applications. They save up to one-third the board space of SO-DIMM when used with a vertical or 22.5° angled socket and are ideal for very dense system boards. SMART's Mini-DIMMs are available in Industrial Grade. For customers still in the design process, SMART offers a DDR4 Mini-DIMM-to-DIMM adaptor which allows for Mini-DIMM testing on standard DDR4 systems that use DIMMs.

SMART's DDR4 Mini-DIMMs are offered from 4GB to 16GB, and DDR3 from 1GB to 8GB. All Mini-DIMMs meet JEDEC pinout standards.

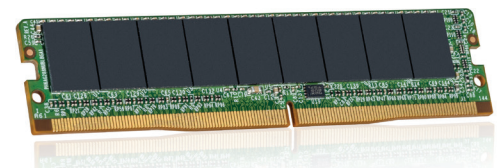
Mini-DIMMs are ideal for long life-cycle OEM products which require high durability, density and performance.

### Features & Benefits

- Small form factor, 80mm length, variable heights (standard, ULP, VLP)
- Extra power & ground pins vs. SO-DIMMs - higher reliability and better signal integrity
- More robust latched connector vs. SO-DIMMs

### Product Family Overview

	Density	Speed
<b>DDR4</b>		
288-PIN Mini-RDIMM	8GB to 16GB	2666
288-PIN ULP Mini-RDIMM	4GB to 8GB	2666
288-PIN VLP Mini-UDIMM	4GB to 32GB	2400/2666
<b>DDR3</b>		
244-PIN Mini RDIMM	2GB to 8GB	1600
244-PIN VLP Mini-RDIMM	2GB to 8GB	1333/1600
288-PIN ULP Mini-RDIMM	8GB	1600
244 PIN ECC Mini-UDIMM	4GB to 8GB	1600
244 PIN ECC ULP Mini-UDIMM	4GB to 8GB	1600
244 PIN ECC VLP Mini-UDIMM	2GB to 4GB	1600



### Applications

- Networking and telecom
- Industrial, computing, and storage
- ATCA blades

Mini-DIMM

## DDR4 Mini-DIMM Ordering Information

288-PIN - DDR4 Mini-RDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
ST2047MR410893HC	16GB	30	2Gb x72	1Gx8	2666MT/s	1.2V	0°C to +70°C
ST2047MR410893SC	16GB	30	2Gb x72	1Gx8	2666MT/s	1.2V	0°C to +70°C
ST1027MR451893SF	8GB	30	1Gb x72	512Mx8	2666MT/s	1.2V	0°C to +70°C
288-PIN - DDR4 ULP Mini-RDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
SP1027MV351816SEU	8GB	17.78	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
ST5127MR451893SFU	4GB	17.78	512Mb x72	512Mx8	2666MT/s	1.2V	0°C to +70°C
288-PIN - DDR4 VLP Mini-RDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
ST4097MR44D814MBV	32GB	18.75	4Gb x72	2Gx8	2933MT/s	1.2V	0°C to +70°C
ST4097MR44D814SAV	32GB	18.75	4Gb x72	2Gx8	2933MT/s	1.2V	0°C to +70°C
ST4097MR44D893SAV	32GB	18.75	4Gb x72	2Gx8	2666MT/s	1.2V	0°C to +70°C
ST2047MR420825SAV	16GB	18.75	2Gb x72	2Gx8	3200MT/s	1.2V	0°C to +70°C
ST2047MR420893SAV	16GB	18.75	2Gb x72	2Gx8	2666MT/s	1.2V	0°C to +70°C
ST1027MR410893SCV	8GB	18.75	1Gb x72	1Gx8	2666MT/s	1.2V	0°C to +70°C
ST5127MR451893SEV	4GB	18.75	512Mb x72	512Mx8	2666MT/s	1.2V	0°C to +70°C
288-PIN - DDR4 ULP Mini-UDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
ST4097MU44D893SAU	32GB	17.78	4Gb x72	2Gx8	2666MT/s	1.2V	0°C to +70°C
ST1027MU410893SCU	8GB	17.78	1Gb x72	1Gx8	2666MT/s	1.2V	0°C to +70°C
ST1027MU410872SCU	8GB	17.78	1Gb x72	1Gx8	2400MT/s	1.2V	0°C to +70°C
288-PIN - DDR4 VLP Mini-UDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
ST2047MU420825SAV	16GB	18.75	2Gb x72	2Gx8	3200MT/s	1.2V	0°C to +70°C
ST2047MU410893HCV	16GB	18.75	2Gb x72	1Gx8	2666MT/s	1.2V	0°C to +70°C
ST2047MU410893SCV	16GB	18.75	2Gb x72	1Gx8	2666MT/s	1.2V	0°C to +70°C
ST2047MU420893SAV	16GB	18.75	2Gb x72	2Gx8	2666MT/s	1.2V	0°C to +70°C
ST12047MU410872SCV	16GB	18.75	2Gb x72	1Gx8	2400MT/s	1.2V	-40°C to +85°C
ST1027MU410893HCV	8GB	18.75	1Gb x72	1Gx8	2666MT/s	1.2V	0°C to +70°C
ST1027MU410893SCV	8GB	18.75	1Gb x72	1Gx8	2666MT/s	1.2V	0°C to +70°C
ST1027MU451893SFV	8GB	18.75	1Gb x72	512Mx8	2666MT/s	1.2V	0°C to +70°C
ST1027MU410872SCV	8GB	18.75	1Gb x72	1Gx8	2400MT/s	1.2V	0°C to +70°C
ST11027MU410872SCV	8GB	18.75	1Gb x72	1Gx8	2400MT/s	1.2V	-40°C to +85°C
ST5126MU451893SFV	4GB	18.75	512Mb x64	512Mx8	2666MT/s	1.2V	0°C to +70°C
ST5127MU451893HBV	4GB	18.75	512Mb x72	512Mx8	2666MT/s	1.2V	0°C to +70°C
ST5127MU451893SFV	4GB	18.75	512Mb x72	512Mx8	2666MT/s	1.2V	0°C to +70°C

## DDR3 Mini-DIMM Ordering Information

244 PIN - DDR3 Mini-RDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
SP1027MV351816HE	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP1027MV351816SE	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP2567MV325816SF	2GB	30	256Mb x72	256Mx8	1600MT/s	1.35V	0°C to +70°C
244 PIN - DDR3 VLP Mini-RDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
SP1027MV351816MPV	8GB	18.3	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP11027MV351816MPV	8GB	18.3	1Gb x72	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SP5127MV351816HEV	4GB	18.75	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127MV351816SEV	4GB	18.75	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127MR351893SEV	4GB	18.75	512Mb x72	512Mx8	1333MT/s	1.5V	0°C to +70°C
SP2567MV325816SFV	2GB	18.75	256Mb x72	256Mx8	1600MT/s	1.35V	0°C to +70°C

## DDR3 Mini-DIMM Ordering Information Continued

288-PIN - DDR3 ULP Mini-RDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
SP1027MV351816SEU	8GB	17.78	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
244 PIN - DDR3 ECC Mini-UDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
SP1027ML351816HE	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127ML351816HE	4GB	30	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127ML351816SE	4GB	30	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP2567ML325816SF	4GB	30	512Mb x72	256Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127ML325816SF	4GB	30	512Mb x72	256Mx8	1600MT/s	1.35V	0°C to +70°C
244 PIN - DDR3 ECC VLP Mini-UDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
SP5127ML351816HEV	4GB	18.75	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127ML351816SEV	4GB	18.75	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPI5127ML351816SEV	4GB	18.75	512Mb x72	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SA5127ML351893SEV	4GB	18.75	512Mb x72	512Mx8	1333MT/s	1.35V	0°C to +70°C
SP2567ML325816SFV	2GB	18.75	256Mb x72	256Mx8	1600MT/s	1.35V	0°C to +70°C
SP2567MU325816SFV	2GB	18.75	256Mb x72	256Mx8	1600MT/s	1.5V	0°C to +70°C
SPI2567ML325816SFV	2GB	18.75	256Mb x72	256Mx8	1600MT/s	1.35V	-40°C to +85°C
244 PIN - DDR3 ECC ULP Mini-UDIMM							
SMART Part Number	Density	Height (mm)	Module Config.	Device Type	Speed	Voltage	Temperature
SP1027ML351816MPU	8GB	17.78	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP1027ML351816SEU	8GB	17.78	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPI1027ML351816SEU	8GB	17.78	1Gb x72	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SP5127ML325816SFU	4GB	17.78	512Mb x72	256Mx8	1600MT/s	1.35V	0°C to +70°C

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