

# DDR3 Memory Module

SMART Modular Technologies' DDR3 memory modules support up to 16GB with a design configuration of 2Gx72. SMART's DDR3 modules have multiple benefits including quadrank architecture for enabling cost effective high-densities and a single-register design for reduced memory bus loading. Registered DIMMs (RDIMMs) use 4-bit DRAMs and leverage 8-bit DDR3 DRAMs, allowing for lower power consumption due to half the number of rows and columns being accessed.

### Features & Benefits

- Lower power
- Larger densities
- Improved signaling with fly-by architecture
- Thermal sensors

## DDR3 Ordering Information

240 PIN - DDR3 RDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SPI2047RV310438SE	16GB	30	2Gb x72	1Gx4	1866MT/s	1.35V	-40°C to +85°C
SP2047RV310438SE	16GB	30	2Gb x72	1Gx4	1866MT/s	1.35V	0°C to +70°C
SH2047RV310416MP	16GB	30	2Gb x72	1Gx4	1600MT/s	1.35V	0°C to +70°C
SP2047RV310416SE	16GB	30	2Gb x72	1Gx4	1600MT/s	1.35V	0°C to +70°C
SP2047RD351893SE	16GB	30	2Gb x72	512Mx8	1333MT/s	1.5V	0°C to +70°C
SPI027RD310438SE	8GB	30	1Gb x72	1Gx4	1866MT/s	1.5V	0°C to +70°C
SH1027RV310416MP	8GB	30	1Gb x72	1Gx4	1600MT/s	1.35V	0°C to +70°C
SPI027RV310416SE	8GB	30	1Gb x72	1Gx4	1600MT/s	1.35V	0°C to +70°C
SPI027RV351816SE	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
240 PIN - DDR3 VLP RDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SP2047RV310416MPV	16GB	19.25	2Gb x72	1Gx4	1600MT/s	1.35V	0°C to +70°C
SPI1027RV351816SEV	8GB	18.75	1Gb x72	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SH1027RV351816MPV	8GB	18.75	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPI027RV351816SEV	8GB	18.75	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPI027RD351893SEV	8GB	18.75	8Gb x72	512Mx8	1333MT/s	1.5V	0°C to +70°C
SPI027RV351893SEV	8GB	18.75	1Gb x72	512Mx8	1333MT/s	1.35V	0°C to +70°C
SH5127RD351838SEV	4GB	18.75	512Mb x72	512Mx8	1866MT/s	1.5V	0°C to +70°C
SH5127RD351216MKV	4GB	18.75	512Mb x72	512Mx4	1600MT/s	1.5V	0°C to +70°C
SH5127RV351216MKV	4GB	18.75	512Mb x72	512Mx4	1600MT/s	1.35V	0°C to +70°C
SP5127RV351816SEV	4GB	18.75	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
240 PIN - DDR3 ECC UDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SH1027UD351838SE	8GB	30	1Gb x72	512Mx8	1866MT/s	1.5V	0°C to +70°C
SH1027UV351816MP	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPI027UV351816SE	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SH5127UD351838SE	4GB	30	512Mb x72	512Mx8	1866MT/s	1.5V	0°C to +70°C
SP5127UV351838SE	4GB	30	512Mb x72	512Mx8	1866MT/s	1.35V	0°C to +70°C
SH5127UV351816MP	4GB	30	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127UV351816HE	4GB	30	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127UV351816SE	4GB	30	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C

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## DDR3 Ordering Information continued

240 PIN - DDR3 Non-ECC UDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SPI1026UV351816SE	8GB	30	1Gb x64	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SH1026UV351816HE	8GB	30	1Gb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP1026UV351816SE	8GB	30	1Gb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C
SH5126UV351816HE	4GB	30	512Mb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5126UV351816SE	4GB	30	512Mb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5126UV325816SF	4GB	30	512Mb x64	256Mx8	1600MT/s	1.35V	0°C to +70°C
240 PIN - DDR3 ECC VLP UDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SP1027UV351816SEV	8GB	18.29	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127UV351816SEV	4GB	18.75	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
240 PIN - DDR3 Non-ECC VLP UDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SP1026UV351816SEV	8GB	18.29	1Gb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5126UV325816SFV	4GB	18.29	512Mb x64	256Mx8	1600MT/s	1.35V	0°C to +70°C
244 PIN - DDR3 Mini-RDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
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 ECC ULP (17.8mm) and VLP (18.8mm) Mini-RDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SH1027MV351838SEU	8GB	17.78	1Gb x72	512Mx8	1866MT/s	1.35V	-40°C to +85°C
SP1027MV351816MPV	8GB	18.3	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPI1027MV351816MPV	8GB	18.3	1Gb x72	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SP5127MV351816SEV	4GB	18.75	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SH5127MR351893WMV	4GB	18.75	512Mb x72	512Mx8	1333MT/s	1.5V	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
244 PIN - DDR3 ECC Mini-UDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SH1027ML351816MP	8GB	30	1Gb 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 ULP (17.8mm) and VLP (18.8mm) Mini-UDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
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
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
SP2567ML325816SFV	2GB	18.75	256Mb x72	256Mx8	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
204 PIN - DDR3 Non-ECC SODIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SP1026SV351838SE	8GB	30	1Gb x64	512Mx8	1866MT/s	1.35V	0°C to +70°C
SH1026SV351838SE	8GB	30	1Gb x64	512Mx8	1866MT/s	1.35V	0°C to +70°C
SP1026SV351838MP	8GB	30	1Gb x64	512Mx8	1866MT/s	1.35V	0°C to +70°C
SPI1026SV351816SE	8GB	30	1Gb x64	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SH1026SV351816MP	8GB	30	1Gb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP1026SV310816GB	8GB	30	1Gb x64	1Gx8	1600MT/s	1.35V	0°C to +70°C
SP1026SV351816HE	8GB	30	1Gb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP1026SV351816SE	8GB	30	1Gb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C

## DDR3 Ordering Information continued

204 PIN - DDR3 Non-ECC SODIMM continued							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SH5126SV351838SE	4GB	30	512Mb x64	512Mx8	1866MT/s	1.35V	0°C to +70°C
SPI5126SV351816SE	4GB	30	512Mb x64	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SH5126SV351816HE	4GB	30	512Mb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5126SV321616SE	4GB	30	512Mb x64	256Mx16	1600MT/s	1.35V	0°C to +70°C
SP5126SV351816SE	4GB	30	512Mb x64	512Mx8	1600MT/s	1.35V	0°C to +70°C
SHI2566SV325816MK	2GB	30	256Mb x64	256Mx8	1600MT/s	1.35V	-40°C to +85°C
SPI2566SV325816SF	2GB	30	256Mb x64	256Mx8	1600MT/s	1.35V	-40°C to +85°C
SH2566SV321616HE	2GB	30	256Mb x64	256Mx16	1600MT/s	1.35V	0°C to +70°C
SP2566SO321616SE	2GB	30	256Mb x64	256Mx16	1600MT/s	1.5V	0°C to +70°C
SP2566SV321616SE	2GB	30	256Mb x64	256Mx16	1600MT/s	1.35V	0°C to +70°C
SP2566SV325816SF	2GB	30	256Mb x64	256Mx8	1600MT/s	1.35V	0°C to +70°C
SP2566SO325893SF	2GB	30	256Mb x64	256Mx8	1333MT/s	1.5V	0°C to +70°C
204 PIN - DDR3 ECC SODIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SPII027SV351816SE	8GB	30	512Mb x72	512Mx8	1600MT/s	1.35V	-40°C to +85°C
204 PIN - DDR3 Registered ECC SODIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SPII027SL351816SE	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SPI027SL351816SE	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPI5127SL351816SE	4GB	30	512Mb x72	512Mx8	1600MT/s	1.35V	-40°C to +85°C
SP5127SL351816SE	4GB	30	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP2567SL325816SF	2GB	30	256Mb x72	256Mx8	1600MT/s	1.35V	0°C to +70°C
SS647SR264852SN	512MB	30	64Mb x72	64Mx8	667MT/s	1.8V	0°C to +70°C
204 PIN - DDR3 ECC SODIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SPT2047SV310816GB	16GB	30	2Gb x72	1Gx8	1600MT/s	1.35V	0°C to +70°C
SHI027SV351838SE	8GB	30	1Gb x72	512Mx8	1866MT/s	1.35V	0°C to +70°C
SHI027SV351816MP	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP1027SV351816SE	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPII027SV351816SE	8GB	30	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127SV351816HEV	4GB	25.4	4Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP5127SV351816SEV	4GB	25.4	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPI5127SV351816SEV	4GB	25.4	512Mb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SP2567SO325838SFV	2GB	25.4	256Mb x72	256Mx8	1866MT/s	1.5V	0°C to +70°C
SP2567SV325816SFV	2GB	25.4	256Mb x72	256Mx8	1600MT/s	1.35V	0°C to +70°C
240 PIN - DDR3 LRDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SP4097LV32D416MPN	32GB	30.35	4Gb x72	1Gx4	1600MT/s	1.35V	0°C to +70°C
SH4097LV32D416TCN	32GB	30.35	4Gb x72	1Gx4	1600MT/s	1.35V	0°C to +70°C
240 PIN - DDR3 ECC XRDIMM							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SPI027XV351816SE	8GB	38	1Gb x72	512Mx8	1600MT/s	1.35V	0°C to +70°C
SPII027XV351816SE	8GB	38	1Gb x72	512Mx8	1600MT/s	1.35V	-40°C to +85°C
216 PIN - DDR3 MIP							
SMART Part Number	Density	Height (mm)	Module Config	Device Config	Speed	Voltage	Temp
SH2566MP321638MP	2GB	22.25	256Mb x64	256Mx16	1866MT/s	1.35V	0°C to +70°C
SH2566MP321638SE	2GB	22.25	256Mb x64	256Mx16	1866MT/s	1.35V	0°C to +70°C
SH2566MP321616MP	2GB	22.25	256Mb x64	256Mx16	1600MT/s	1.35V	0°C to +70°C

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