Synchronous Dynamic RAM

MODULE

SDRAM Memory Module

2Gbit SDRAM organized as 128Mx16, based on 64Mx8

Features

- Stack of four 512Mbit SDRAM.
- Organized as 128Mx16-bit.
- Single +3.3V power supply.
- Fully synchronous; all signals registered on positive edge of system clock.
- Internal pipelined operation; column address can be changed every clock cycle.
- Programmable burst lengths; 1, 2, 4, 8 or full page.
- Auto precharge, includes Concurrent Auto Precharge, and Auto Refresh Modes.
- Self Refresh Modes.
- LVTTL-compatible inputs and outputs.
- Available Temperature Range:
  - 0°C to +70°C
  - -40°C to +85°C
  - Specific temperature range on demand
- Available with screening option for high reliability applications (Space, etc…)

General Description

The 3DSD2G16VS4767 is a high-speed highly integrated Synchronous Dynamic Random Access Memory containing 2,147,483,648 bits. It is organized with 2 bank of 1Gbit. Each bank has a 16bit interface and is selected with specific #CS. It is particularly well suited for use in high reliability, high performance and high density system applications, such as solid state mass recorder, server or workstation.

The 3DSD2G16VS4767 is packaged in a 54 pin SOP.
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Absolute maximum ratings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage on any pin relative to ( V_{SS} )</td>
<td>( V_{IN}, V_{OUT} )</td>
<td>-1.5 to ( V_{DD} ) +0.5</td>
<td>V</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>( T_{STG} )</td>
<td>-65 to +150</td>
<td>°C</td>
</tr>
<tr>
<td>Power dissipation</td>
<td>( P_D )</td>
<td>2</td>
<td>W</td>
</tr>
<tr>
<td>Short circuit current</td>
<td>( I_{SS} )</td>
<td>50</td>
<td>mA</td>
</tr>
</tbody>
</table>

DC Characteristics

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Symbol</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Current (one bank active)</td>
<td>( I_{DD} )</td>
<td>350</td>
<td>mA</td>
</tr>
<tr>
<td>Precharge standby current in power-down mode</td>
<td>( I_{DDP} )</td>
<td>16</td>
<td>mA</td>
</tr>
</tbody>
</table>

3DSD2G16VS4764

Temperature Range

- C = (0°C ~ +70°C)
- I = (-40°C ~ +85°C)
- M = (-55°C to + 125°C)
- S = Specific

Quality Level

- N = Commercial Grade
- B = Industrial Grade
- S = Space Grade

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SDRAM Memory Module

3D Plus SA reserves the right to cancel product or specifications without notice

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