

DDR2 Synchronous Dynamic Ram MODULE

3D2D4G64UB2415

4Gbit DDR2 SDRam organized as 64Mx64, based on 64Mx16

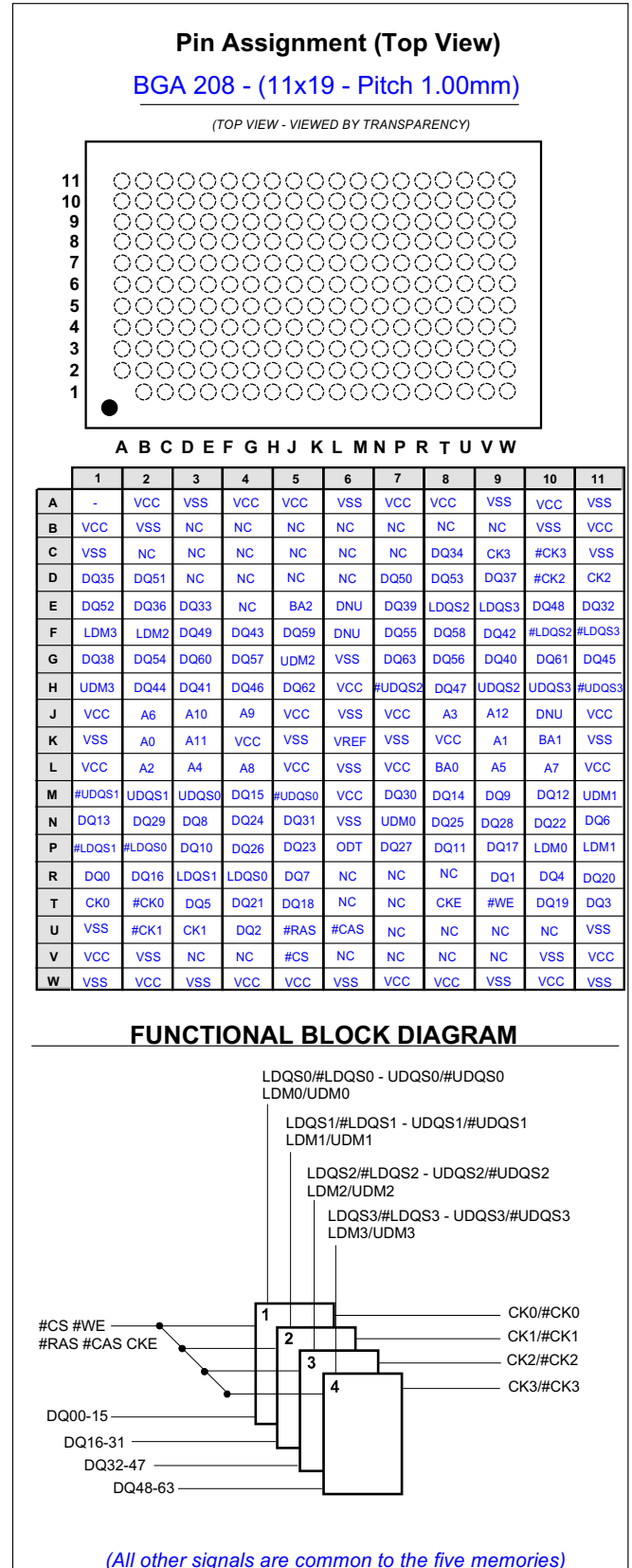


Features

- Organized as 64Mx64
- Core supply voltage 1.8V +/- 0.1V
- I/O supply voltage 1.8V +/- 0.1V
- Jedec standard 1.8V I/O (SSTL_18 compatible)
- Data rate = 400, 533, 667, 800 Mbps
- Differential data strobe per byte
- 4n-bit prefetch architecture
- DLL to align DQ and DQS transitions with CK
- 8 internal banks per die for concurrent operation
- Programmable CAS Latency
- Posted CAS Additive Latency
- Write Latency = Read Latency - 1'CK
- Programmable Burst Lengths: 4 or 8
- One Die Termination
- 208 leaded or lead-free balls - pitch 1.0mm
- Available Temperature Range :
 - 0°C to + 70°C
 - 40°C to + 95°C
 - 55°C to +125°C
- Suitable for high reliability applications

General description

The 3D2D4G64UB2415 is a high-speed highly integrated DDR2 Synchronous Dynamic Ram Memory. It is organized with 4 chips of 1Gbit each. It is particularly well suited for use in high reliability, high performance and high density system applications, such as servers or workstations. The 3D2D4G64UB2415 is packaged in a 208 balls BGA available with lead-free or leaded balls.

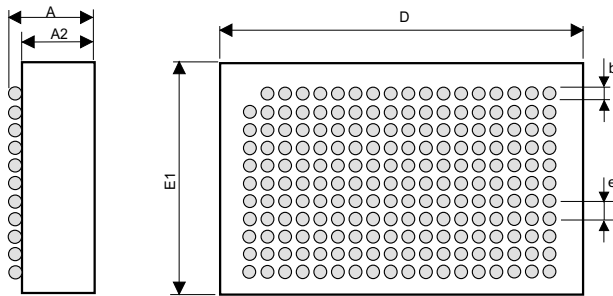


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Mechanical Drawing



	Min	Max
A	3.85	4.25
A2	3.35	3.75
D	21.80	22.20
E1	15.80	16.20
b	0.60	
e	1.00	
Dimensions (mm)		
Max. weight : 3 gr.		

Test Tools

-	-	Modified by 3D PLUS
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DC Operating conditions and characteristics

Parameter	Symbol	Min	Max	Unit
Supply Voltage	V _{DD}	1.7	1.9	V
I/O Supply Voltage	V _{DDQ}	1.7	1.9	V
I/O Reference Voltage	V _{REF}	0.49xV _{DDQ}	0.51xV _{DDQ}	V
I/O Termination Voltage (syst.)	V _{TT}	V _{REF} -0.04	V _{REF} +0.04	V
Input High (Logic1) Voltage	V _{IH} (DC)	V _{REF} +0.125	V _{DDQ} +0.3	V
Input Low (Logic0) Voltage	V _{IL} (DC)	-0.3	V _{REF} -0.125	V

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Voltage on any pin relative to VSS	V _{IN} , V _{OUT}	-1.0 ~ 2.3	V
Storage temperature	T _{STG}	-55 ~ +150	°C
Power dissipation	P _D	TBD	W

DC Characteristics

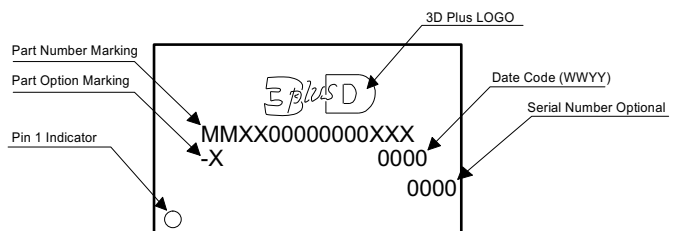
Parameter for DDR2-800	Symbol	Value	Unit
Operating read-precharge current	I _{DD1}	360	mA
Precharge power down current	I _{DD2P}	28	mA
Self refresh current	I _{DD6}	28	mA

3D2D4G64UB2415

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Temperature Range
C = (0°C to +70°C)
I = (-40°C to +85°C)
M = (-55°C to +125°C)

MODULE MARKING



MAIN SALES OFFICE

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