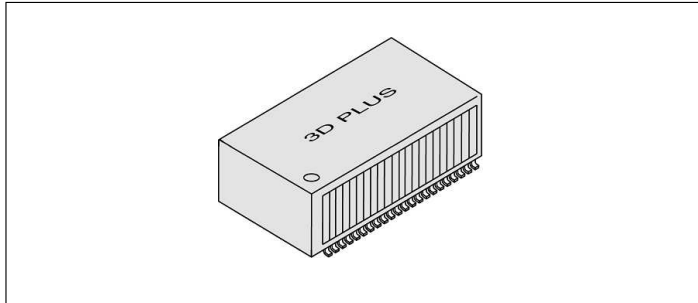


DDR Synchronous Dynamic Ram MODULE

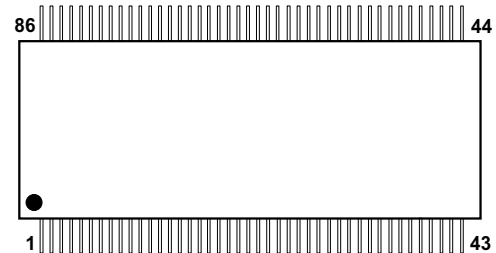
3D 1D2G32TS2268

2Gbit DDR SDRam organized as 64Mx32, based on 64Mx16



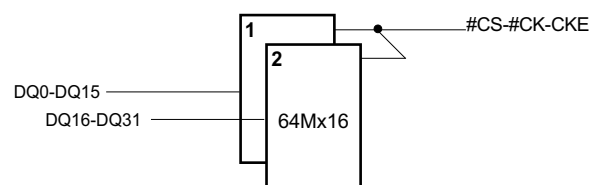
Pin Assignment (Top View)

SOP 86 - (Pitch : 0.65 mm)



1	DQ19	23	VDD	45	DQ26	67	VSSQ
2	DQ18	24	DNU	46	DQ25	68	NC
3	DQ17	25	LDM	47	DQ24	69	DQ08
4	DQ16	26	#WE	48	NC	70	VDDQ
5	NC	27	#CAS	49	VSS	71	DQ09
6	VDD	28	#RAS	50	A4	72	DQ10
7	DQ00	29	#CS	51	A5	73	VSSQ
8	VDDQ	30	NC	52	A6	74	DQ11
9	DQ01	31	BA0	53	A7	75	DQ12
10	DQ02	32	BA1	54	A8	76	VDDQ
11	VSSQ	33	A10/AP	55	A9	77	DQ13
12	DQ03	34	A0	56	A11	78	DQ14
13	DQ04	35	A1	57	A12	79	VSSQ
14	VDDQ	36	A2	58	NC	80	DQ15
15	DQ05	37	A3	59	CKE	81	VSS
16	DQ06	38	VDD	60	CK	82	NC
17	VSSQ	39	NC	61	#CK	83	DQ31
18	DQ07	40	DQ23	62	UDM	84	DQ30
19	NC	41	DQ22	63	VSS	85	DQ29
20	VDDQ	42	DQ21	64	VREF	86	DQ28
21	LDQS	43	DQ20	65	DNU		
22	A13	44	DQ27	66	UDQS		

FUNCTIONAL BLOCK DIAGRAM



(All other signals are common to the two memories)

Features

- Stack of two 1Gbit DDR SDRam.
- Organized as 64Mx32-bit.
- Power supply: Vdd, Vddq=2.5V ± 0.2V.
- Double-data-rate architecture; two data transfer per clock cycle.
- Internal pipelined operation ; column address can be changed every clock cycle.
- Bidirectional data strobe.
- Differential clock inputs (CK and #CK).
- DLL aligns DQ and DQS transition with CK transition.
- Programmable Read Latency 2, 2.5 (clock).
- Programmable Burst length (2, 4, 8).
- Programmable Burst type (sequential & interleave).
- Edge aligned data output, center aligned data input.
- Auto & Self refresh, 7,8us refresh interval (8K/64ms refresh)
- Available temperature range:
 - 0°C to +70°C
 - 40°C to +85°C
- Available with screening option for high reliability application (Space, etc...).

General description

The 3D 1D2G32TS2268 is a high-speed highly integrated DDR Synchronous Dynamic Random Access Memory containing 2.147.483.648 bits.

It is organized with two banks of 1Gbit.

The module has 32-bit interface and is selected with specific #CS #CK and CKE.

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.

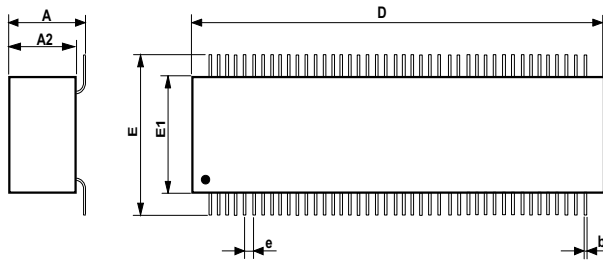
The 3D 1D2G32TS2268 is packaged in a 86 pin SOP.

DDR Synchronous Dynamic Ram MODULE

3D 1D2G32TS2268

2Gbit DDR SDRam organized as 64Mx32, based on 64Mx16

Mechanical Drawing



	Min	Max
A	-	5.25
A2	-	4.00
D	29.40	29.80
E	13.40	13.80
E1	10.85	11.05
b	0.30	
e	0.65	
Dimensions (mm)		

Max. weight : 4.00 gr.

Test Tools

3D 1D2G32TS2268

Modified by 3D PLUS

DC Operating conditions and characteristics

Parameter	Symbol	Min	Max	Unit
Supply voltage	V _{DD} , V _{DDQ}	2.5	2.7	V
Input logic high voltage	V _{IH}	V _{Ref} +0.15	V _{DD} +0.3	V
Input logic low voltage	V _{IL}	-0.3	V _{Ref} -0.15	V
Output logic high Voltage	V _{OH}	2.4	-	V
Output logic low voltage	V _{OL}	-	0.4	V

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Voltage on any pin relative to VSS	V _{IN} , V _{OUT}	-0.5 ~ +3.6	V
Storage temperature	T _{STG}	-55 ~ +150	°C
Power dissipation	P _D	1.5	W
Short circuit current	I _{OS}	50	mA

DC Characteristics

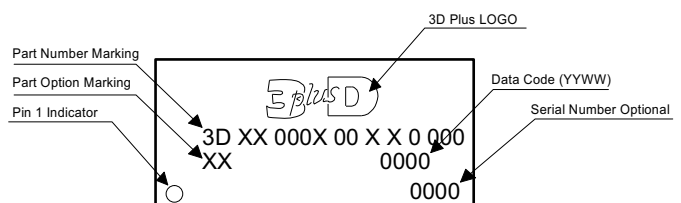
Parameter	Symbol	Value	Unit
Operating current (one bank active)	I _{CC1}	400	mA
Precharge power down standby current	I _{CC2P}	20	mA
Active standby current	I _{CC2N}	90	mA

3D 1D2G32TS2268

Temperature Range
C = (0°C to + 70°C)
I = (-40°C to + 85°C)
M = (-55°C to + 125°C)
S = Specific
 Quality Level
N = Commercial Grade
B = Industrial Grade
S = Space Grade
C = Custom

X X

MODULE MARKING



MAIN SALES OFFICE

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USA	3D PLUS USA, Inc 6633 Eldorado Parkway Suite 420 Mckinney, TX 75070	Tél : (214) 733-8505	Fax : (214) 733-8506	e-mail : sales@3d-plus.com	