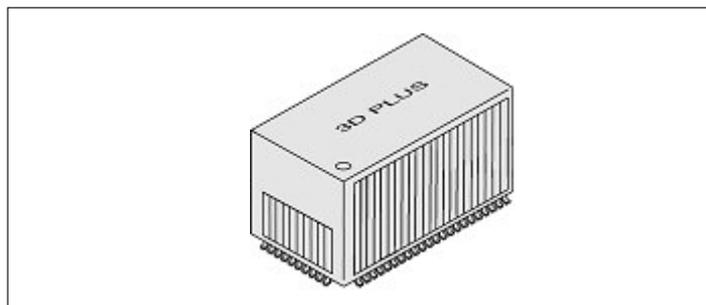


Synchronous Dynamic Ram MODULE

3DSD3G48VQ6486

3Gbit SDRam organized as 64Mx48, based on 32Mx16



Features

- Organized as 64Mx48-bit.
- Single +3.3V power supply.
- Clock Frequency : 133MHz/CL3 Operation.
- Operating temperature : -40°C to +85°C
- Single pulsed #RAS
- 2 Burst Sequence variations
Sequential (BL=1/2/4/8)
Interleave (BL=1/2/4/8)
- Programmable #CAS latency (CL) : 2/3
- 64ms Refresh cycles
- Auto refresh and Self refresh
- LVTTTL Compatible Inputs and Outputs
- Available with screening option for high reliability application (Space, etc...).

General description

The 3DSD3G48VQ6486 is a high-speed highly integrated Synchronous Dynamic Random Access Memory containing 3.298.534.823.328 bits.

It is organized with 6 banks of 512Mbit.

Each bank has 16-bit interface and is selected with specific #CS, UDQM and LDQM.

It is particularly well suited for use in high reliability, high performance and high density system applications. Independent UDQM and LDQM control signals also make it suitable to use as 40b configuration.

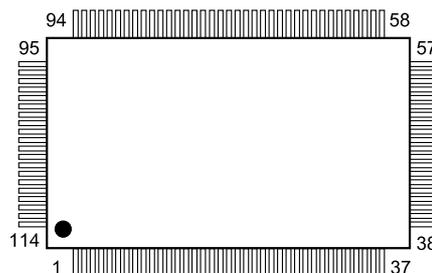
The 3DSD3G48VQ6486 is packaged in a 114 QFP.

SDRam Memory Module

PRELIMINARY / 3DSD3G48VQ6486

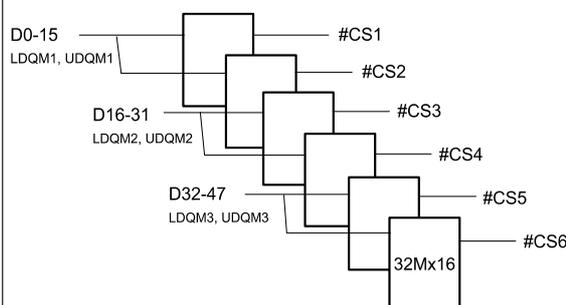
Pin Assignment (Top View)

QFP 114 - (Pitch : 0.635mm)



1	VCC	27	D27	53	D21	79	NC	105	VSSQ
2	VSS	28	VCCQ	54	D5	80	CLK	106	A9
3	D47	29	VSSQ	55	D36	81	#CS1	107	A10
4	D31	30	D11	56	VSS	82	#CS3	108	A11
5	D15	31	D42	57	VCC	83	#CS5	109	A12
6	NC	32	D26	58	VCC	84	NC	110	#WE
7	#CS6	33	D10	59	VSS	85	#CAS	111	CKE
8	#CS4	34	D41	60	D20	86	VCCQ	112	NC
9	VSSQ	35	D25	61	D4	87	VSSQ	113	VSSQ
10	VCCQ	36	VSS	62	D0	88	#RAS	114	VCCQ
11	#CS2	37	VCC	63	D16	89	BA0		
12	NC	38	VCC	64	D32	90	BA1		
13	NC	39	VSS	65	D1	91	A0		
14	LDQM1	40	D9	66	D17	92	A1		
15	LDQM2	41	D40	67	VSSQ	93	VSS		
16	LDQM3	42	D24	68	VCCQ	94	VCC		
17	D46	43	D8	69	D33	95	VCC		
18	D30	44	D39	70	D2	96	VSS		
19	D14	45	D23	71	D18	97	A2		
20	D45	46	D7	72	D34	98	A3		
21	D29	47	VCCQ	73	D3	99	A4		
22	D13	48	VSSQ	74	D19	100	A5		
23	D44	49	D38	75	D35	101	A6		
24	D28	50	D22	76	UDQM1	102	A7		
25	D12	51	D6	77	UDQM2	103	A8		
26	D43	52	D37	78	UDQM3	104	VCCQ		

FUNCTIONAL BLOCK DIAGRAM



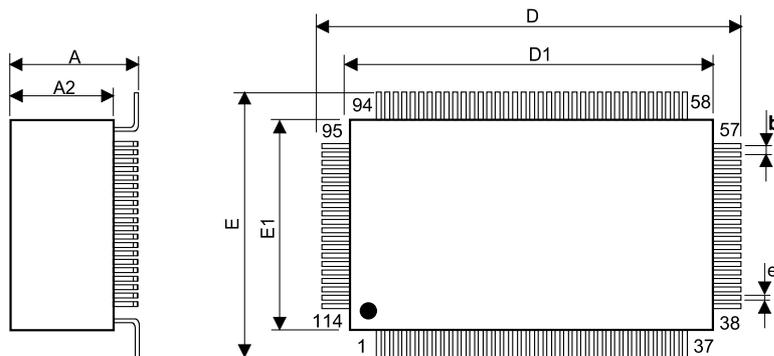
(All other signals are common to the six memories)

Synchronous Dynamic Ram MODULE

3DSD3G48VQ6486

3Gbit SDRam organized as 64Mx48, based on 32Mx16

Mechanical Drawing



	Min	Max
A	11.65	12.25
A2	10.40	11.00
D	32.80	33.20
D1	27.80	28.20
E	22.00	22.40
E1	17.00	17.40
b	0.635	
e	0.30	
Dimensions (mm)		

Max. weight : 11gr.

Test Tools

3DSD3G48VQ6486

ENPLAS : OTQ 164-0.635-5

Modified by 3D PLUS

DC Operating conditions and characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Supply voltage	VDD, VDDQ	3.0	3.3	3.6	V
Input logic high voltage	VIH	2.0	3.0	VDD+0.3	V
Input logic low voltage	VIL	-0.3	-	0.8	V
Output logic high Voltage	VOH	2.4	-	-	V
Output logic low voltage	VOL	-	-	0.4	V

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Voltage on any pin relative to VSS	VIN, VOUT	-0.5~ Vcc + 0.5	V
Storage temperature	TSTG	-65 ~ +150	°C
Power dissipation	PD	3	W
Short circuit current	Los	50	mA

DC Characteristics

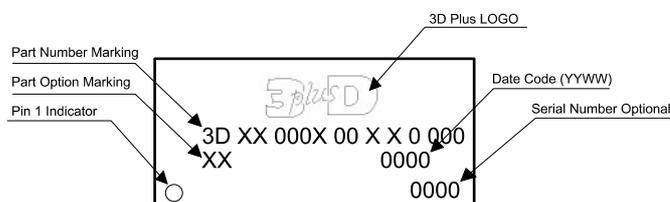
Parameter	Symbol	Value	Unit
Operating current	Icc1	480	mA
Precharge standby current in power-down mode	Icc2P	24	mA
	Icc2PS	12	mA

3DSD3G48VQ6486

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

	3D PLUS			Web : www.3d-plus.com e-mail : sales@3d-plus.com	DISTRIBUTOR
FRANCE	408, rue Hélène Boucher Z.I. 78532 BUC Cedex	Tél : 33 (0)1 30 83 26 50	Fax : 33 (0)1 39 56 25 89		
USA	3D PLUS USA, Inc 2570 Eldorado Parkway Suite 150 McKinney, TX 75070	Tél : (214) 733-8505	Fax : (214) 733-8506	e-mail : sales@3d-plus.com	