

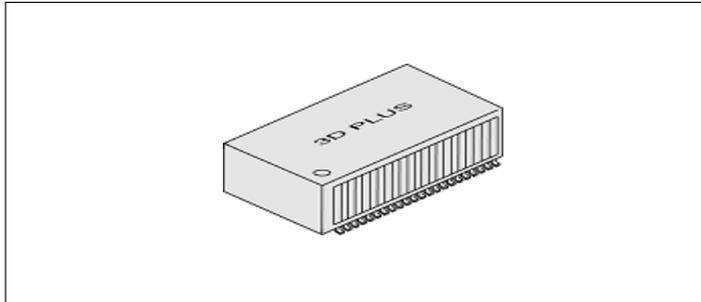


# MEMORY MODULE PROM 4Mx8-SOP

## Programmable ROM MODULE

**3DPO32M08VS1419**

32Mbit PROM organized as 4Mx8



### Features

- 32Mb memory density
- One-time-programmable (OTP) Read-Only-Memory
- Power supply +3.3 +/- 0.3V
- Simple interface for FPGA configuration Memory
- Dual configuration modes:
  - Serial configuration(up to 33Mb/s)
  - Parallel (up to 264Mb/s at 33MHz)
- Programmable reset polarity (active High or active Low)
- Cascadable for storing longer or multiple bitstreams
- 20 year life data retention
- Available with military temperature Range -55°C to +125°C
- Radiation tolerance:
  - TID of 50 kRad(Si) per spec 1019.5
  - Latch-Up and SEU Immune to LET>120 MeV/cm2/mg
- Space qualified product

### General description

The 3DPO32M08VS1419 is a 32Mb high-density Programmable Read Only Memory, which provide an easy to use, integrated two chip containing 16,777,216bits each.

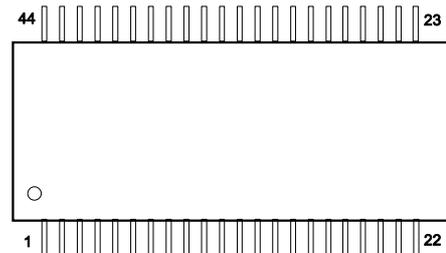
The 3DPO32M08VS1419 can operate in either a serial or byte wide mode. It s a non-volatile one-time programmable designed to store configuration bitstreams of FPGA devices.

The 3DPO32M08VS1419 guaranteed 20 years life data retention and is also used as processors Boot and Program PROM in a variety of high performance and high reliability computer boards

The 3DPO32M08VS1419 is packaged in a 44 pin SOP.

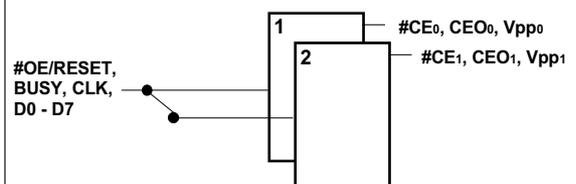
### Pin Assignment (Top View)

SOP 44 - (Pitch : 0.80mm)



1	OE/#RESET	23	Vpp1
2	(#CE6) DNU	24	(Vpp3) DNU
3	(#CE4) DNU	25	(Vpp5) DNU
4	(#CE2) DNU	26	(Vpp7) DNU
5	#CE0	27	GND
6	VCC	28	VCC
7	GND	29	D7
8	#CEO0	30	D6
9	(#CEO2) DNU	31	D5
10	(#CEO4) DNU	32	D4
11	(#CEO6) DNU	33	D3
12	BUSY	34	D2
13	(#CE7) DNU	35	D1
14	(#CE5) DNU	36	D0
15	(#CE3) DNU	37	VCC
16	#CE1	38	GND
17	VCC	39	Vpp0
18	GND	40	(Vpp2) DNU
19	(#CEO7) DNU	41	(Vpp4) DNU
20	(#CEO5) DNU	42	(Vpp6) DNU
21	(#CEO3) DNU	43	GND
22	#CEO1	44	CLK

### FUNCTIONAL BLOCK DIAGRAM

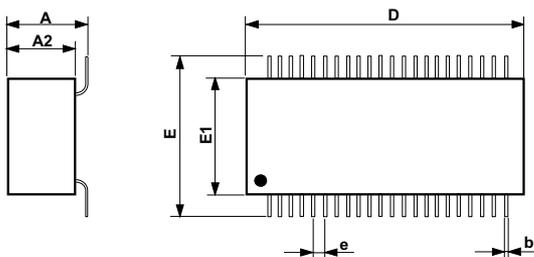


(All other signals are common to the four memories)

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### Mechanical Drawing



	Min	Max
A	4.00	4.40
A2	3.70	4.10
D	19.80	20.20
E	13.40	13.80
E1	10.75	11.15
b	0.35	
e	0.80	
Dimensions (mm)		
Max. weight : 4.00 gr.		

### Test Tools

3DPO32M08VS1419

ENPLAS OTS - 64-0.8-04

Modified by 3D PLUS

### DC Operating conditions and characteristics

Parameter	Symbol	Min	Max	Unit
Supply voltage	V <sub>CC</sub>	3.0	3.6	V
High-level input voltage	V <sub>IH</sub>	2.0	V <sub>CC</sub>	V
Low-level input voltage	V <sub>IL</sub>	0	0.8	V
High-level output voltage	V <sub>OH</sub>	2.4	-	V
Low-level output voltage	V <sub>OL</sub>	-	0.4	V
I/O leakage current	I <sub>L</sub>	-10	10	µA

### Absolute maximum ratings

Parameter	Symbol	Value	Unit
Supply voltage relative to GND	V <sub>CC</sub>	-0.5 ~ 7.0	V
Supply voltage relative to GND	V <sub>PP</sub>	-0.5 ~ 12.5	V
Input voltage relative to GND	V <sub>IN</sub>	-0.5 ~ V <sub>CC</sub> +0.5	V
Voltage applied to High-Z output	V <sub>TS</sub>	-0.5 ~ V <sub>CC</sub> +0.5	V
Storage temperature	T <sub>STG</sub>	-65 ~ +150	°C

### DC Characteristics

Parameter	Symbol	Value	Unit
Supply current (active mode)	I <sub>CCA</sub>	200	mA
Supply current (Standby mode)	I <sub>CCS</sub>	2	mA

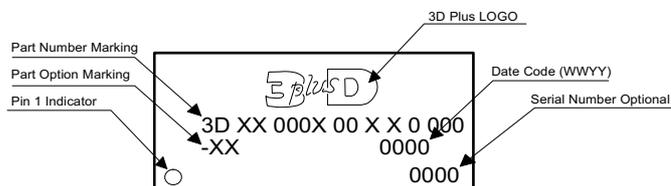
### 3DPO32M08VS1419

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

Quality Level  
**N** = Commercial Grade  
**B** = Industrial Grade  
**S** = Space Grade

### MODULE MARKING



### MAIN SALES OFFICE

	3D PLUS			Web : <a href="http://www.3d-plus.com">www.3d-plus.com</a> e-mail : <a href="mailto:sales@3d-plus.com">sales@3d-plus.com</a>	DISTRIBUTOR
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USA	3D PLUS USA, Inc 2570 Eldorado Parkway Suite 150 Mckinney, TX 75070	Tél : (214) 733-8505	Fax : (214) 733-8506	e-mail : <a href="mailto:sales@3d-plus.com">sales@3d-plus.com</a>	