512 Megabit Synchronous DRAM

DPSD128MX4WY5

DESCRIPTION:

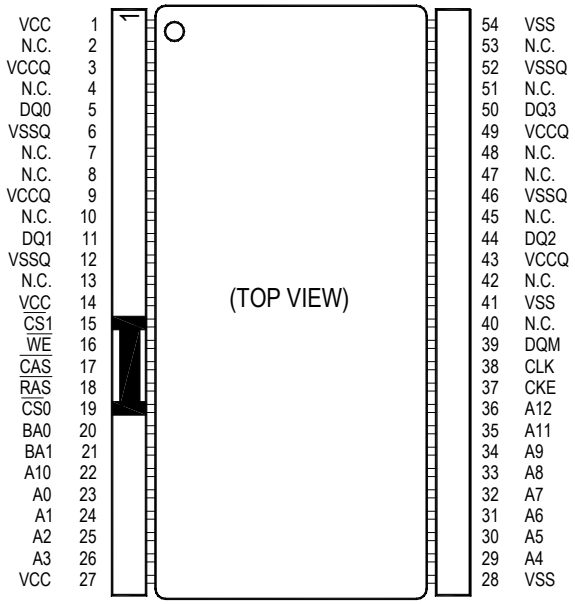
The LP-Stack™ series is a family of interchangeable memory modules. The 512 Megabit SDRAM is a member of this family which utilizes the new and innovative space saving TSOP stacking technology. The modules are constructed with 64 Meg x 4 SDRAMs.

This 256 Megabit based LP-Stack™ module, the DPSD128MX4WY5 has been designed to fit in the same footprint as the 64 Meg x 4 SDRAM TSOP monolithic and 64 Megabit SDRAM based family of LP-Stack™ modules. This allows the memory board designer to upgrade the memory in their products without redesigning the memory board, thus saving time and money.

FEATURES:

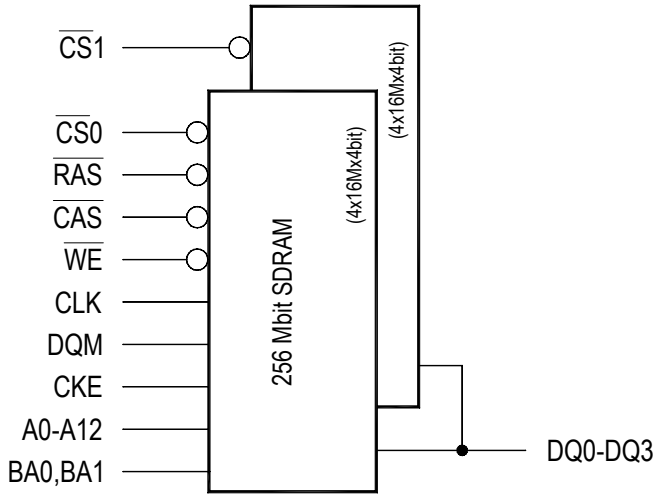
- Configuration Available:
  128 Meg x 4 (2 Banks of 16M x 4 x 4 bits)
- Clock Frequency:
  66, 83, 100, 125, 133 MHz (max.)
- PC100 and PC133 Compatible
- 3.3V Supply
- LVTTL Compatible I/O
- Four Bank Operation
- Programmable Burst Type, Burst Length, and CAS Latency
- 8192 Cycles / 64 ms
- Auto and Self Refresh
- Package: TSOP Leadless Stack

PIN-OUT DIAGRAM



PIN NAMES	
A0-A12	Row Address: A0-A12 Column Address: A0-A9, A11
BA0,BA1	Bank Select Address
DQ0-DQ3	Data In/Data Out
$\overline{CAS}$	Column Address Strobes
$\overline{RAS}$	Row Address Enables
$\overline{WE}$	Data Write Enables
DQM	Data Input/Output Mask
CKE	Clock Enable
CLK	System Clock
$\overline{CS0}$-$\overline{CS1}$	Chip Selects
Vcc/Vss	Power Supply/Ground
VccQ/VssQ	Data Output Power/Ground
N.C.	No Connect

FUNCTIONAL BLOCK DIAGRAM



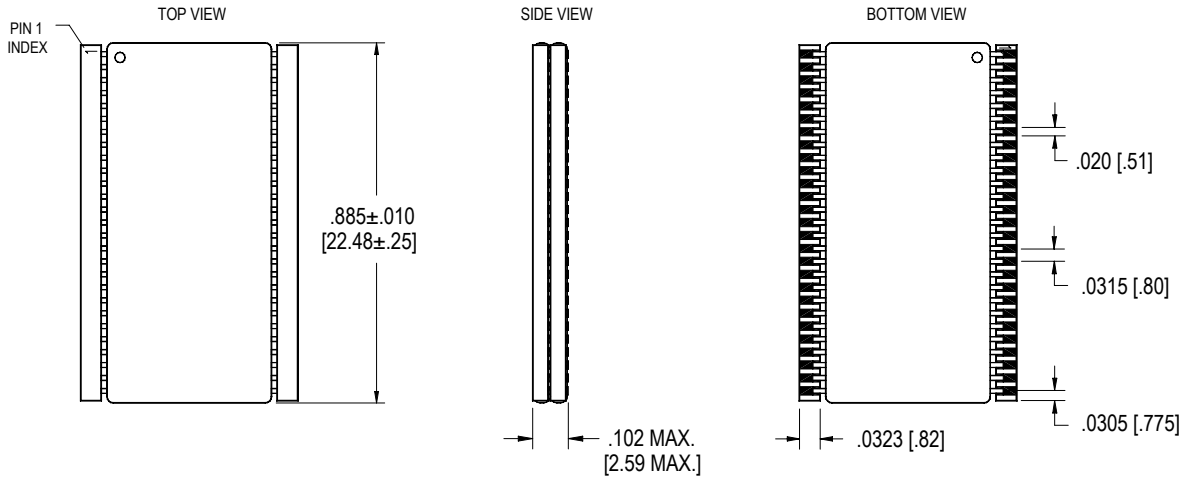
PART NUMBER DESCRIPTION

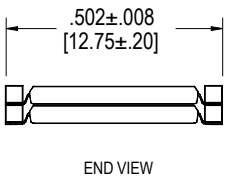
DP	SD	128M	X	4	W	Y5	-	DP	-	XX	XX	X	X
PREFIX	TYPE	MEMORY DEPTH	DESIG	MEMORY WIDTH	DESIG	PACKAGE		SUPPLIER		MEMORY	SPEED	CL	GRADE

- GRADE: Blank Commercial Temperature
- CL: 2 CAS LATENCY 2
- SPEED: 15 15ns (66MHz); 12 12ns (83MHz); 10 10ns (100MHz); 08 8ns (125MHz); 75 7.5ns (133MHz); P1 PC100
- MEMORY: MANUFACTURER CODE *
- SUPPLIER: SUPPLIER CODE *
- PACKAGE: STACKABLE TSOP
- DESIG: 256 MEGABIT LVTTL BASED
- MEMORY WIDTH: MEMORY MODULE WITHOUT SUPPORT LOGIC
- TYPE: SYNCHRONOUS DRAM

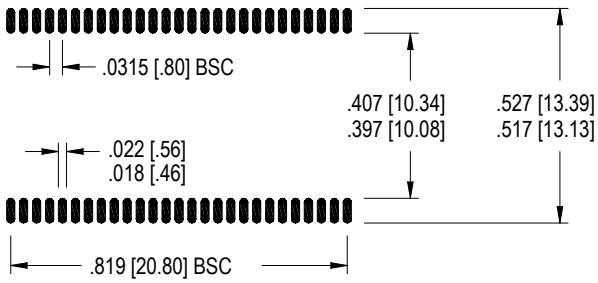
* Contact your sales representative for supplier and manufacturer codes.

MECHANICAL DRAWING





Standard TSOP pad layout is acceptable, however, when possible, the following pad layout is recommended for optimal manufacture and inspection. See Application Note 53A001-00 for further information.



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