

**ADVANCED INFORMATION**

**DESCRIPTION:**

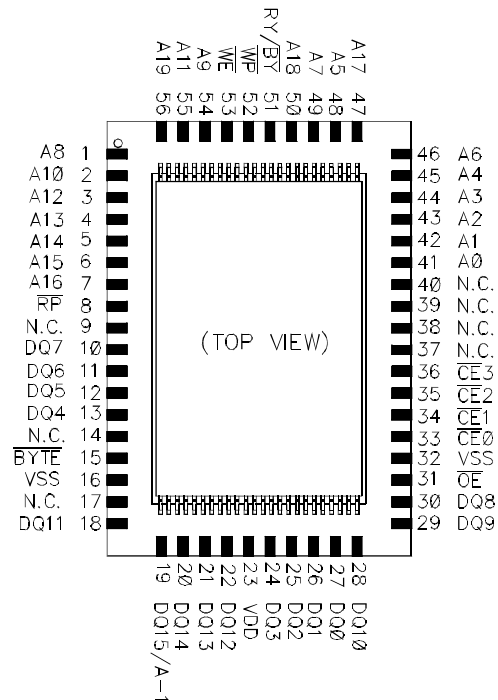
The DP3Z4MX16PMTY5/DP3Z4MX16PMBY5 is a 64 megabit 3.3 Volt only CMOS Flash EEPROM (Electrically In-System Programmable and Erasable ROM Memory) module. These modules are constructed of four 1M x 16 FLASH EEPROM's that are configured as a 4M x 16.

The module features high speed access times with common data inputs and outputs. The Flash devices used in this module also features BGO (Blank Ground Operations). This feature allows Program or Erase operations to be performed on one bank of the device while a read operation is performed on the other bank.

**FEATURES:**

- Organizations Available: 4M x 16
- Fast Read Access Times: 80ns ( $V_{DD}=3.3\pm0.3V$ )  
90ns ( $V_{DD}=2.7\sim3.6V$ )
- Industrial Temperature:  $-40^{\circ}C$  to  $+85^{\circ}C$
- Low Power:
  - 70 mA Maximum active (16 bit Mode)
  - 20 $\mu$ A Maximum Standby (CMOS)
- 100K Program / Erase Cycles
- 3.3 Volt Only In-System Programming
- Package: 56-Pin TSOP Stack

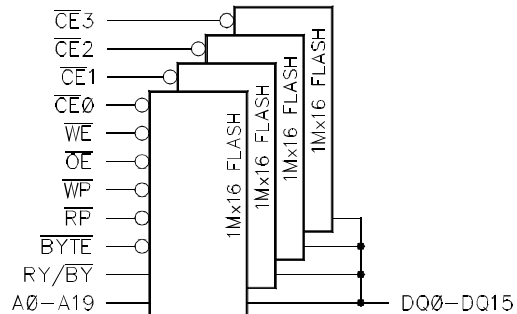
**PIN-OUT DIAGRAM**



**PIN NAMES**

| PIN NAMES  |                     |
|------------|---------------------|
| A0 - A19   | Address             |
| DQ0 - DQ15 | Data Input / Output |
| CE0 - CE3  | Low Chip Enables    |
| WE         | Write Enable        |
| OE         | Output Enable       |
| WP         | Write Protect       |
| RP         | Reset/Power Down    |
| BYTE       | Byte Enable         |
| RY/BY      | Ready/Busy          |
| VDD        | Power (+3.3V)       |
| VSS        | Ground              |
| N.C.       | No Connect          |

**FUNCTIONAL BLOCK DIAGRAM**



# DP3Z4MX16PMTY5/DP3Z4MX16PMBY5

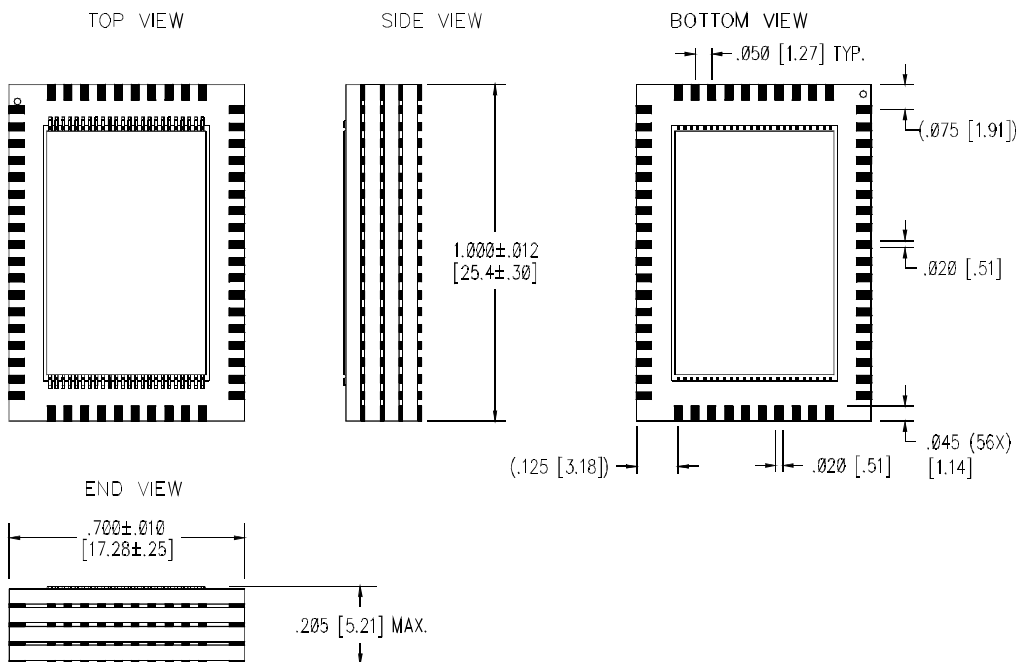
Dense-Pac Microsystems, Inc.

## ADVANCED INFORMATION

### ORDERING INFORMATION

| PREFIX | TYPE | MEMORY DEPTH | DESIG | MEMORY WIDTH | DESIG | MEMORY | BOOT | PACKAGE | SPEED | GRADE                                                       |
|--------|------|--------------|-------|--------------|-------|--------|------|---------|-------|-------------------------------------------------------------|
| DP     | 3Z   | 4M           | X     | 16           | P     | M      | x    | Y5      | - 90  | CI                                                          |
|        |      |              |       |              |       |        |      |         |       | CI Commercial Processed<br>@ Industrial Temp. -40°C to 85°C |
|        |      |              |       |              |       |        |      |         |       | 90ns                                                        |
|        |      |              |       |              |       |        |      |         |       | 56 PIN TSOP STACK                                           |
|        |      |              |       |              |       |        |      |         |       | T TOP BOOT BLOCK                                            |
|        |      |              |       |              |       |        |      |         |       | B BOTTOM BOOT BLOCK                                         |
|        |      |              |       |              |       |        |      |         |       | MITSUBISHI FLASH                                            |
|        |      |              |       |              |       |        |      |         |       | 16 MEGABIT BASED                                            |
|        |      |              |       |              |       |        |      |         |       | MEMORY MODULE WITHOUT SUPPORT LOGIC                         |
|        |      |              |       |              |       |        |      |         |       | 3.3 VOLT FLASH EEPROM                                       |

### MECHANICAL DRAWING



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