

## 1. Description

The SP002GBLRU800S02 is a 128M x 8bits Double Data Rate SDRAM high-density for DDR2-800. The SP002GBLRU800S02 consists of 16pcs CMOS 128Mx8 bits Double Data Rate SDRAMs in 60 ball FBGA packages, and a 2048 bits serial EEPROM on a 240-pin printed circuit board. The SP002GBLRU800S02 is a Dual In-Line Memory Module and is intended for mounting into 240-pin edge connector sockets. Synchronous design allows precise cycle control with the use of system clock. Data I/O transactions are possible on both edges of DQS. Range of operation frequencies, programmable latencies allow the same device to be useful for a variety of high bandwidth, high performance memory system applications.

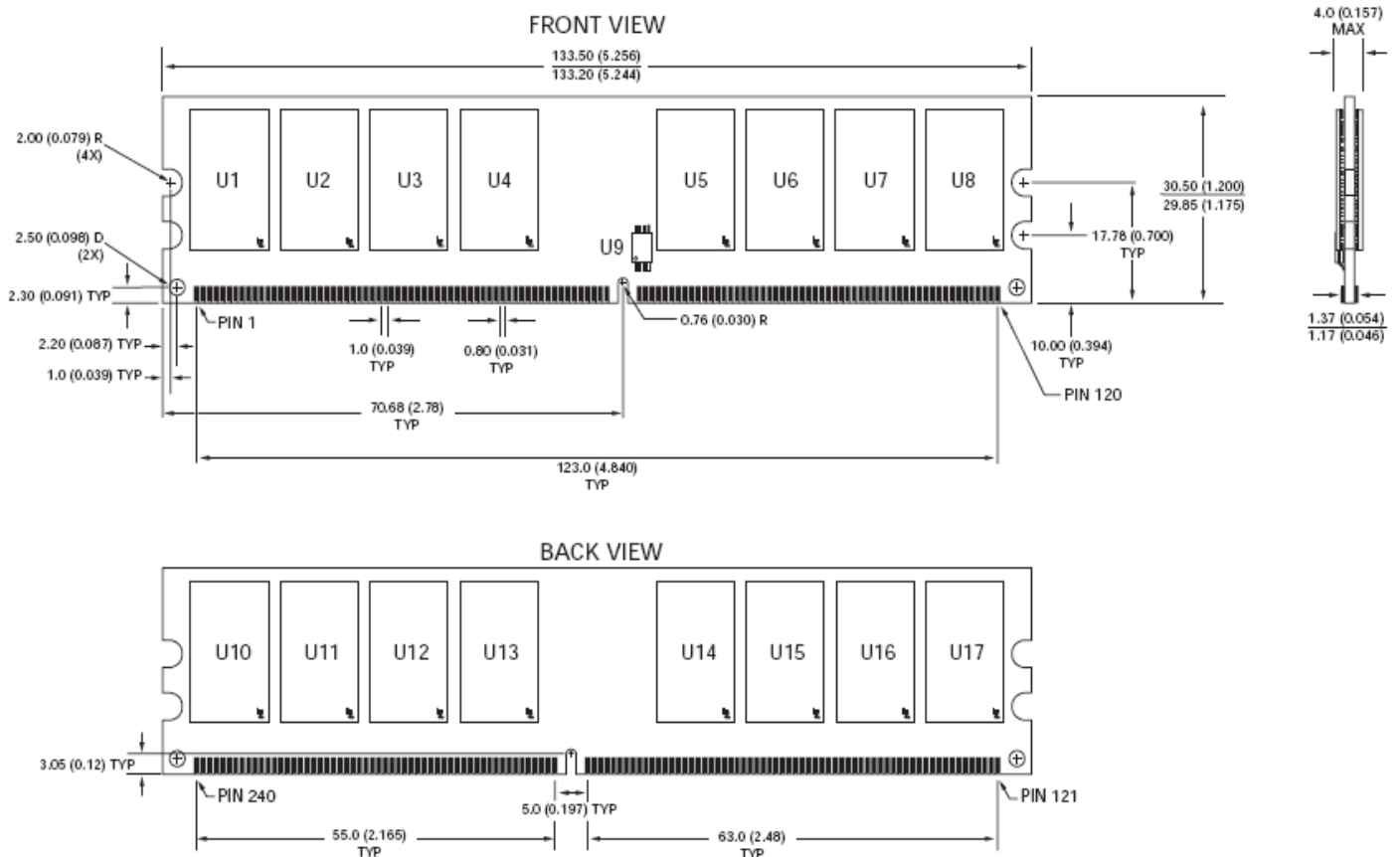
## 2. Features

- Fast data transfer rates: PC2-6400
- 240-pin, unbuffered dual in-line memory module
- VDD = VDDQ = +1.8V, VDDSPD = +1.7V to +3.6V
- JEDEC standard 1.8V I/O (SSTL\_18-compatible)
- Differential data strobe (DQS, DQS#) option
- Four-bit prefetch architecture
- DLL to align DQ and DQS transitions with CK
- Multiple internal device banks for concurrent operation
- Programmable CAS# latency (CL)
- Posted CAS# additive latency (AL)
- WRITE latency = READ latency - 1 tCK
- Programmable burst lengths: 4 or 8
- Adjustable data-output drive strength
- 64ms, 8,192-cycle refresh
- On-die termination (ODT)
- 60ball FBGA Leaded & Pb-Free (RoHS compliant) package

### 3. Module Specification

Item	Specification
Capacity	2048MByte
Physical Bank(s)	2
Module Organization	256M x 64bit
Module Type	Unbuffered Non ECC
Speed Grade	PC2-6400/CL=6,tRCD=6,tRP=6 (DDR2 800)
Voltage Interface	SSTL_18
Power Supply Voltage	1.8V±0.1V
Burst Lengths	4 or 8
DRAM Organization	128M x 8bit DDR2 SDRAM
PCB Layer	6Layers
Contact Tab	240 pin GOLD Flash Plating
Serial PD	Support

### 4. Simplified Mechanical Drawing with Keying Positions



**Notes :** 1. All dimensions are in millimeters (inches); MAX/MIN or typical (TYP) where noted.