

## CIR-S2DUMG8001G

DDR2 DIMM 800MHz 1GB

### Description

The CIR-S2DUMG8001G is 128M wordsx64 bits, 1 rank DDR2 SDRAM unbuffered module, mounting 8 pieces of 1G bits DDR2 SDRAM sealed in FBGA ( $\mu$ BGA®) package. Read and write operations are performed at the cross points of the CK and the /CK. This high-speed data transfer is realized by the 4bits prefetch pipelined architecture. Data strobe (DQS and /DQS) both for read and write are available for high speed and reliable data bus design. By setting extended mode register, the on-chip Delay Locked Loop (DLL) can be set enable or disable. This module provides high density mounting without utilizing surface mount technology. Decoupling capacitors are mounted beside each FBGA ( $\mu$ BGA) on the module board.

### Specifications

Density	1GB
Pin Count	240pin
Type	Unbuffered
Dimensions	133.35mm x 30.00mm
ECC	Non-ECC
Component Config	128M x 8 bit
Data Rate	800 MHz
CAS Latency	6
Voltage	1.8V
PCB Layers	6
Operating Temp.(TCASE)	0°C~+85°C
Module Ranks	Single Rank

### Features

- Lead-Free products are ROHS compliant
- 240-pin Dual in-line memory module(DIMM)
- JEDEC standard 1.8V I/O(SSTL\_18-compatible)
- 8 Banks
- Burst Length : 4,8
- CAS Latency (CL) : 4,5,6
- 4-bit prefetch pipelined architecture
- Auto refresh and self refresh supported
- Differential clock inputs (CK & /CK)
- DLL align DQ and DQS transitions with CK transitions
- DQS can be disabled for single-ended Data Strobe operation
- Bi-directional differential Data-Strobe (DQS &/DQS) is transmitted/received with data for capturing data at the receiver
- Posted CAS
- Data mask(DM) for write data
- ODT (On-Die Termination)
- OCD (Off-Chip Driver Impedance Adjustment)
- 8192 refresh cycle /64ms
- Serial presence detect with EEPROM
- Gold edge contacts
- Average Refresh Period  
7.8us at 0°C  $\leq$  TCASE  $\leq$  +85°C  
3.9us at +85°C < TCASE  $\leq$  +95°C

