

## CIR-S3DUSPM1304G Art. N° 158458

DDR3 DIMM 1333MHz 4GB

### Description

The CIR-S3DUSPM1304G is 512MB words X 64 bits, 1 rank. Unbuffered Dual In-Line Memory Module (DIMM). DDR3 SDRAMs in Fine Ball Grid Array (FBGA) packages on a 240pin glass-epoxy substrate. Provide a high performance 8 byte interface in 133.35mm width form factor of industry standard. It is suitable for easy interchange and addition.

### Specifications

|                        |                   |
|------------------------|-------------------|
| Density                | 4GB               |
| Pin Count              | 240pin            |
| Type                   | Unbuffered        |
| Dimensions             | 133.35mm x 30.0mm |
| ECC                    | Non-ECC           |
| Component Config       | 512M x 8 bit      |
| Data Rate              | 1333 MHz          |
| CAS Latency            | 9                 |
| Voltage                | 1.5V / 1.35V      |
| PCB Layers             | 6                 |
| Operating Temp.(TCASE) | 0°C~+85°C         |
| Module Ranks           | Single Rank       |

### Features

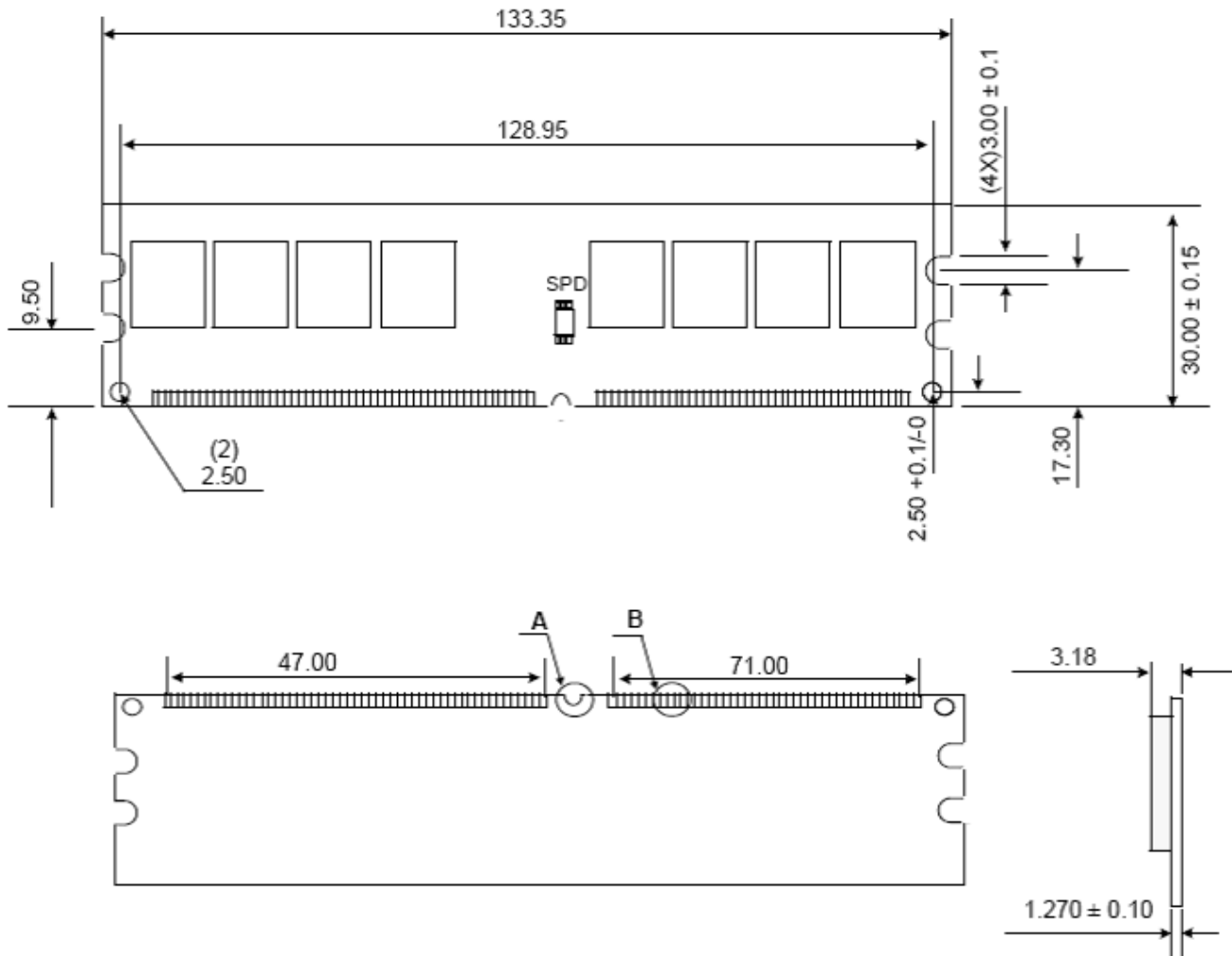
- Data rate: 1333MHz
- 240-pin, Dual in-line memory module (DIMM)
- Power supply: VDD= 1.5V (1.425V to 1.575V) & VDD= 1.35V (1.283V to 1.45V)
- Interface: SSTL\_15
- Programmable CAS Latency (CL): 6,7,8,9 support
- Fully differential clock inputs (CK, /CK) operation
- Differential Data Strobe (DQS, /DQS)
- DM masks write data-in at the both rising and falling edges of the data strobe
- BL switch on the fly
- 8banks
- 8K refresh cycles /64ms
- Dynamic On Die Termination supported
- Asynchronous RESET pin supported
- ZQ calibration supported
- TDQS (Termination Data Strobe) supported (x8 only)
- Write Levelization supported
- Refresh: Auto-Refresh, Self-Refresh
- On Die Thermal Sensor supported (JEDEC optional)
- 8 bit pre-fetch
- Lead-Free Products are RoHS compliant
- Average Refresh Period 7.8us at  $0^{\circ}\text{C} \leq \text{TC} \leq 85^{\circ}\text{C}$   
3.9us at  $85^{\circ}\text{C} \leq \text{TC} \leq 95^{\circ}\text{C}$

### Speed Grade

| Frequency Grade | Data Transfer Rate | CAS Latency Support |      |      |      | CL-tRCD-tRP |
|-----------------|--------------------|---------------------|------|------|------|-------------|
|                 |                    | CL6                 | CL7  | CL8  | CL9  |             |
| DDR3-1333       | PC3-10600          | 800                 | 1066 | 1066 | 1333 | 9-9-9       |

### Package Dimensions

Unit: mm



Tolerances :  $\pm 0.15$ mm unless otherwise specified