

## CIR-V4SESX2632G

DDR4 SO-DIMM 2666MHz 32GB with ECC

### Description

This specification defines the electrical and mechanical requirements for 260 pin, 1.2 V (VDD), Double Data Rate, Synchronous DRAM Dual In-Line Memory Modules (DDR4 SDRAM ECC SO-DIMM). This DDR4 ECC SO-DIMMs is intended for use as main memory when installed in PCs, laptops and other systems.

Reference design examples are included which provide an initial basis for DDR4 ECC SO-DIMM designs. Modifications to these reference designs may be required to meet all system timing, signal integrity and thermal requirements for DDR4-2666 support.

All DDR4 ECC SO-DIMM implementations must use simulations and lab verification to ensure proper timing requirement and signal integrity in the design.

### Specifications

|                        |                   |
|------------------------|-------------------|
| Density                | 32GB              |
| Pin Count              | 260pin            |
| Type                   | Unbuffered        |
| Dimensions             | 69.73mm x 30.13mm |
| ECC                    | with ECC          |
| Component Config       | 2G x 8 bit        |
| Data Rate              | 2666MHz           |
| CAS Latency            | 19                |
| Voltage                | 1.2V              |
| PCB Layers             | 8                 |
| Operating Temp.(TCASE) | 0°C~+85°C         |
| Module Ranks           | Dual Rank         |

### Features

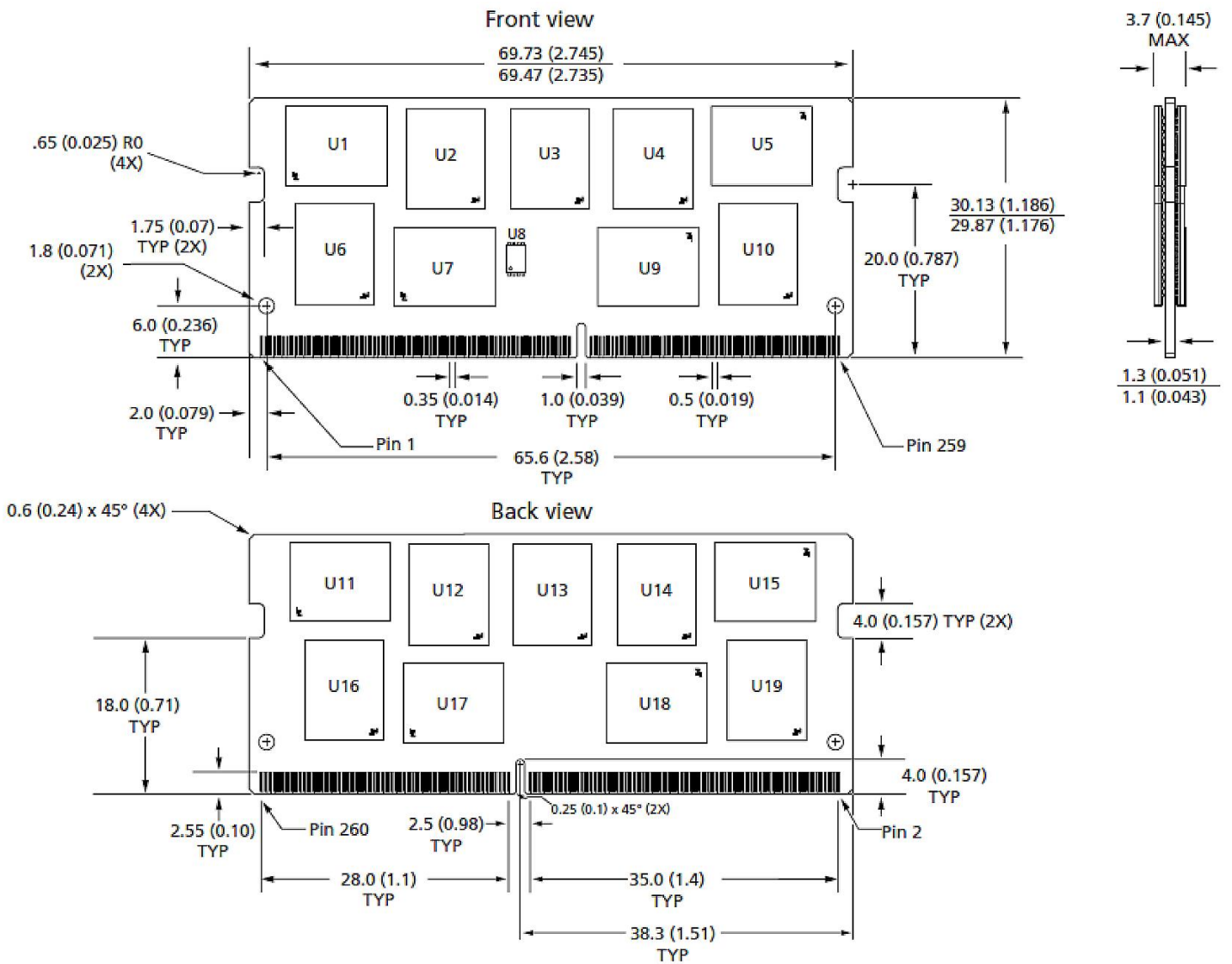
- JEDEC Standard 260-pin Small-Outline Dual In-Line Memory Module
- VDD=VDDQ = 1.2V±0.06V (1.14V~1.26V)
- Programmable CAS Latency(posted CAS): 11,12,13,14,15,16,17,18,19
- Inputs and Outputs are SSTL-12 compatible
- Low-Power auto self-refresh (LPASR)
- SDRAMs have 16 internal banks for concurrent operation (4 Bank Group of 4banks each)
- Normal and Dynamic On-Die Termination for data, strobe and mask signals.
- Data bus inversion (DBI) for data bus
- Fixed burst chop (BC) of 4 and burst length (BL) of 8 via the MRS
- Selectable BC4 or BL8 on-the fly (OTF)
- ECC function support
- RoHS and Halogen free

### Speed Grade

| Frequency Grade | Data Transfer Rate | CAS Latency Support |      |      |      |      |      |      |      | CL-tRCD-tRP |
|-----------------|--------------------|---------------------|------|------|------|------|------|------|------|-------------|
|                 |                    | CL11                | CL12 | CL13 | CL14 | CL15 | CL16 | CL17 | CL19 |             |
| DDR4-2666       | PC4-21300          | 1600                | 1600 | 1866 | 1866 | 2133 | 2133 | 2400 | 2666 | 19-19-19    |

### Package Dimensions

Unit: mm



Tolerances : ± 0.15mm unless otherwise specified