

8 GB DDR4 SDRAM SODIMM Specification

Specifications

Max. Speed; CAS Latency	DDR4-3200@CL=22
Row Cycle Time (tRCmin)	45.75 ns
Refresh to Active/Refresh Command Time (tRFCmin)	350 ns(min.)
Row Active Time (tRASmin)	32 ns(min.)
Operating Temperature	0 ° C to +85 ° C

Features

- 260-pin small outline dual in-line memory module (SODIMM)
- 1Rx8 memory module (1 rank of x8 DDR4 SDRAMs)
- Power supply:
 - VDD = VDDQ = 1.2V $\pm$ 5%
 - VPP = 2.5V -5%/+10%
 - VDDSPD = 2.2V to 3.6V
- Nominal and dynamic on-die termination (ODT) for data, strobe, and mask signals
- Low-power auto self refresh (LPASR)
- Data bus inversion (DBI) for data bus
- On-die VREFDQ generation and calibration
- On-board I²C serial presence-detect (SPD) EEPROM
- 16 internal banks; 4 groups of 4 banks each
- Fixed burst chop (BC) of 4 and burst length (BL) of 8 via the mode register set (MRS)
- Selectable BC4 or BL8 on-the-fly (OTF)
- Fly-by topology
- Terminated control command and address bus
- PCB Height: 1.18" (30.00 mm)

Technical drawing of a rectangular component, showing front and back views, and a detailed view of a specific feature.

Front View (FRONT COMP SIDE):

- Overall width: 69.6
- Overall height: 20.0
- Inner width: 65.6
- Inner height: 18.0
- Top edge thickness: 0.6
- Bottom edge thickness: 0.6
- Left side thickness: 0.6
- Right side thickness: 0.6
- Two circular features: $\varnothing 1.8 \text{ mm} \times 2$
- Two rectangular features: 3.5
- Detail A: A circular feature with a diameter of $\varnothing 0.625$ and a thickness of 2.5.
- Bottom edge features: $\varnothing 0.5 \times 71 = 35.5$ and $\varnothing 0.5 \times 57 = 28.5$

Back View (BACK COMP SIDE):

- Overall width: 69.6
- Overall height: 20.0
- Inner width: 65.6
- Inner height: 18.0
- Top edge thickness: 0.6
- Bottom edge thickness: 0.6
- Left side thickness: 0.6
- Right side thickness: 0.6
- Two rectangular features: 37.0 and 30.0
- Detail A: A circular feature with a diameter of $\varnothing 0.625$ and a thickness of 1.0.

Detail A:

- Overall width: 1.375
- Overall height: 1.125
- Inner width: 0.35
- Inner height: 0.3
- Top edge thickness: 0.3
- Bottom edge thickness: 0.3
- Left side thickness: 0.3
- Right side thickness: 0.3
- Two rectangular features: 2.55 and 4.0
- Detail A: A circular feature with a diameter of $\varnothing 0.5 \text{ mm}$ and a thickness of 1.0.

Material and Tolerance:

- Material: T = 1.2 mm
- Tolerance: $\pm 0.1 \text{ mm}$
- Unit: mm



Change History			
Document No.: DSA6F8GH3SBCAMCF.(Rev.#)			
Rev. #	Who	When	What
01	Abby	2023-05-04	Initial version derived from DSA6F8GH3SBCAMCZF.04; Updated header and footer