

# Memory Product Specification

**ES.08G2Z.GGE**

**8GB 1G x 64**

**DDR4-3000MHz CL18 Overclocking SO-DIMM**

## Description:

The overclocking SO-DIMM for 1G x 64 of 8GB DDR4-3000MHz CL18-20-20-38 at 1.2V Memory Module.

The Module base on eight 1024M x 8 DDR4 FBGA SDRAM components.

The SPDs are programmed to JEDEC standard latency DDR4-2133MHz of CL15-15-15 at 1.2V.

Memory Module intended for mounting into 260-pin edge connector sockets.

The electrical and mechanical specifications are as follows:

## Features:

- DDR4 Speed Grade : 2133Mbps
- Organization
  - 1G x 64, 1 rank
- Mounting 8 pieces of 8G bits DDR4 SDRAM sealed in FBGA
- Package: 260-pin socket type small outline dual in-line memory module (SO-DIMM)
  - PCB height: 1.181 inch (30.00 mm)
  - Lead-free (RoHS compliant)
  - Halogen free
- Power supply: VDD = 1.2V (1.14V to 1.26V)
- 16 internal banks (4 Bank Groups)
- Burst lengths (BL): 8 and 4 with Burst Chop (BC)
- Precharge: auto precharge option for each burst access

- Refresh: auto-refresh, self-refresh
- Refresh cycles
  - Average refresh period
    - 7.8 $\mu$ s at 0°C  $\leq$  TC  $\leq$  +85°C
    - 3.9 $\mu$ s at +85°C < TC  $\leq$  +95°C
- Operating case temperature range
  - TC = 0°C to +95°C

### **Overclocking Datasheet w/ Intel XMP:**

- DDR4 Speed Grade : 3000Mbps
- Power supply: VDD Voltage : 1.2V  
VDDQ Voltage: 1.2V
- CAS latency : CL18-20-20-38
- Bandwidth : 24000MB/s
- Serial presence detect with EEPROM.
- PCB height : 1.181 inch (30.00 mm)
- RoHS Compliant
- Halogen free
- Application : Gaming player

