

DRAM Module Test Report

DDR5 5600 32GB UDIMM
SQR-UD5N32G5K6HNAB

Report no.: [DM_23002](#)

Revision History

Revision	Issued By	Description	Date
v1.0	Kevin Wang	First Release	2023/01/06

List of Contents

1	Test Summary	- 4 -
2	Test Equipment	- 5 -
3	Test Information.....	- 7 -
3.1	Product Information	- 7 -
4	Environmental Test	- 8 -
5	Power Cycling Test	- 9 -
6	Application Test	- 10 -
7	Frequency Compatibility Test	- 11 -

1 Test Summary

The summary of test result. You can understand all test results in table 1-1.

Table 1-1. Summary of Test Result

Items	Test Target		Test Tool	Test Result
Environmental Test	High Temp Test	+95°C	PassMark Memtest86	■Pass □Fail □N/A
	Room Temp Test	+25°C	PassMark Memtest86	■Pass □Fail □N/A
	Low Temp Test	-10°C	PassMark Memtest86	■Pass □Fail □N/A
Power Cycling Test	Warm boot Test		PassMark Rebooter	■Pass □Fail □N/A
	Power On/Off Test	+95°C	PassMark Rebooter	■Pass □Fail □N/A
		-10°C		
	S3 Cycling Test		PassMark Sleeper	■Pass □Fail □N/A
Application Test	Windows OS		MemTest Pro	■Pass □Fail □N/A
Frequency Compatibility Test	System Test		MemTest Pro	■Pass □Fail □N/A
Note	No error found is pass Please refer to section 4~7 for detail test condition.			

2 Test Equipment

I. Platform Information

Platform	Motherboard	CPU	Chipset	BIOS version
M133	MSI PRO Z690-A	Intel Core i5-12600K, 2.80GHz	Intel Z690	A.92 (10/14/2022)
M13F	Gigabyte Z690 AERO D	Intel Core i9-12900K, 3.20GHz	Intel Z690	F8 (08/08/2022)
M150	ASUS ROG Maximus Z790 Hero	Intel Core i9-13900K, 3.00GHz	Intel Z790	0703 (11/01/2022)
M151	ASRock Z790 Live Mixer	Intel Core i7-13700K, 2.50GHz	Intel Z790	5.01 (12/21/2022)
M152	MSI Z790-P WIFI	Intel Core i5-13600K, 2.60GHz	Intel Z790	A.32 (11/10/2022)
M15F	Gigabyte Z790 AORUS MASTER	Intel Core i9-13900K, 3.00GHz	Intel Z790	F5i (11/17/2022)

II. Temperature Chamber

Model	Serial Number	Next Cali. Date
GIANT GTH-150-70-CP-AR	MAA1403-005	2023/3/25

Table 2-1. Temperature chamber Information

- Simulate products under different condition of temperature
- Chamber specifications:
 - Temperature : -70°C~150°C
 - Humidity : 10%~98%RH



Figure 2-1. Temperature Chamber

3 Test Information

3.1 Product Information

Table 3-1. Product Information

Item	Description
Product P/N	SQR-UD5N32G5K6HNAB
DIMM Type	DDR5 UDIMM
DIMM Capacity	32GB
DIMM Frequency	5600MHz
DRAM IC	HYNIX DDR5-5600 16Gb 8bit CL46
PMIC ver.	Renesas
PCB ver.	ADVANTECH D5-O PCB (SO-DIMM) DDR5-5600 x8bit Brain Power: BA5SRCB HF 0.90 (FC-30u"-BL-BE-NV)

3 Environmental Test

Test item	Temp	Test Platform	Test Tool	Test time	Test Result
High Temp Test	+95°C	M150	PassMark Memtest86	48hrs	■ Pass □ Fail □ N/A
	+95°C	M15F	PassMark Memtest86	48hrs	■ Pass □ Fail □ N/A
Low Temp Test	-10°C	M133	PassMark Memtest86	48hrs	■ Pass □ Fail □ N/A
Room Temp Test	+25°C	M13F	PassMark Memtest86	24hrs	■ Pass □ Fail □ N/A
	+25°C	M151	PassMark Memtest86	24hrs	■ Pass □ Fail □ N/A
	+25°C	M152	PassMark Memtest86	24hrs	■ Pass □ Fail □ N/A
Note	No error found is pass RDIMM /ECC DIMM test tool by PassMark Memtest86 Non-ECC DIMM by PassMark Memtest86 or R.S.T Pro				

4 Power Cycling Test

Test item	Temp	Test Platform	Test tool	Test times	Test Result
Warm boot	+25°C	M152	PassMark Rebooter	1000	■Pass □Fail □N/A
Power On/Off	+95°C	M150	PassMark Rebooter	500	■Pass □Fail □N/A
	-10°C	M133		500	■Pass □Fail □N/A
S3 Cycling test	+25°C	M152	PassMark Sleeper	1000	■Pass □Fail □N/A
Note	No error found is pass				

5 Application Test

Operating System	Temp	Test Platform	Test Tool	Test time	Test Result
Windows 10	+25°C	M15F	MemTest Pro	48hrs	■Pass □Fail □N/A
Note	MemTest verifies the reliability of RAM. A correctly functioning computer should be able to store data in memory with 100% accuracy. MemTest tests the ability of your RAM to store many different unique bit patterns, and to correctly hold those values over various periods of time. Verification time is 48H, no error found is pass.				

6 Frequency Compatibility Test

Type	Frequency	Operating System	Test Platform	Test Result
SDRAM	100	Windows	MSI MS-6340	☐ Pass ☐ Fail ☒ N/A
	133	Windows	MSI MS-6340	☐ Pass ☐ Fail ☒ N/A
DDR1	266	Windows	M07	☐ Pass ☐ Fail ☒ N/A
	333	Windows	M07	☐ Pass ☐ Fail ☒ N/A
	400	Windows	M07	☐ Pass ☐ Fail ☒ N/A
DDR2	533	Windows	M83	☐ Pass ☐ Fail ☒ N/A
	667	Windows	M83	☐ Pass ☐ Fail ☒ N/A
	800	Windows	M83	☐ Pass ☐ Fail ☒ N/A
DDR3	800	Windows	M102	☐ Pass ☐ Fail ☒ N/A
	1066	Windows	M102	☐ Pass ☐ Fail ☒ N/A
	1333	Windows	M102	☐ Pass ☐ Fail ☒ N/A
	1600	Windows	M102	☐ Pass ☐ Fail ☒ N/A
	1866	Windows	M102	☐ Pass ☐ Fail ☒ N/A
DDR4	2133	Windows	M125	☐ Pass ☐ Fail ☒ N/A
	2400	Windows	M125	☐ Pass ☐ Fail ☒ N/A
	2666	Windows	M123	☐ Pass ☐ Fail ☒ N/A
	2933	Windows	M123	☐ Pass ☐ Fail ☒ N/A
	3200	Windows	M114	☐ Pass ☐ Fail ☒ N/A
DDR5	4800	Windows	M15F	☒ Pass ☐ Fail ☐ N/A
	5600	Windows	M150	☒ Pass ☐ Fail ☐ N/A

END OF TEST REPORT