

## Product Qualification

### --- Compatibility Test ---

**Product Name :** PT220-M242 256GB 1Tb\*2 Thermal Sensor Sidefill  
w/Graphene Sheet

**Product P/N :** B72.22CJGU.00121

**Qualification :** Function

**Test Result :** PASS

QT	Approved	Date
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**Test Result Summary**

Product Name

PT220-M242 256GB 1Tb\*2 Thermal Sensor Sidefill w/Graphene Sheet

**Platform Information**

Vendor	Gigabyte	Asus	Asus	Asus
Motherboard	GA-Z97X-UD3H	PRIME Z390-A	PRIME Z490-A	PRIME Z-690-A
Chipset	Intel Z97	Intel Z390	Intel Z490	Intel Z690
BIOS	F9	2004	2301	1505
Operating System	Windows 10	Windows 11	Windows 10	Windows 10

**Test Result**

Function Operation Test	Base Function	--	--	--	V
	Format	--	--	--	V
	Product Inf. Check	--	--	--	V
	System Install	--	V	V	--
	Performance	--	--	--	V
System Stress Test	Warm Boot	--	V	--	--
	Cold Boot	--	--	V	--
	Sleep	--	V	--	--
	IOmeter	V	--	--	--
	BurnIn	V	--	--	--
Application Test	RAID Function	--	V	--	--

**Remark**

**A. Function Operation Test**

**1. Base Function Test**

Test Item	Test method	Pass criteria	Result
Copy	OS : Windows 10  Utility : FileCompare	No error found in each stage	PASS
Delete			PASS
Restart			PASS
Compare			PASS
Suspend (S3)			PASS
Hibernate (S4)			PASS
Hot Plug			PASS

**2. Format Test**

Test Item	Test method	Pass criteria	Capacity
FAT32	OS : Windows 10  Utility : Format	No error when disk format, capacity meets specification	--
NTFS			223 GB
exFAT			223 GB

**3. Product Info. Check**

Test Item	Test method	Pass criteria	Result
S.M.A.R.T	OS : Windows 10  Utility : Apacer SSDWidget2.0	Product information meets specification	PASS

4. Performance

Test method	Result															
OS : Windows 10  Benchmark Tool : CrystalDiskMark	<table border="1"> <thead> <tr> <th></th> <th>Read (MB/s)</th> <th>Write (MB/s)</th> </tr> </thead> <tbody> <tr> <td>SEQ1M Q8T1</td> <td>2232.97</td> <td>1062.56</td> </tr> <tr> <td>SEQ128K Q32T1</td> <td>2229.39</td> <td>1068.21</td> </tr> <tr> <td>RND4K Q32T16</td> <td>333.93</td> <td>746.29</td> </tr> <tr> <td>RND4K Q1T1</td> <td>38.60</td> <td>185.06</td> </tr> </tbody> </table>		Read (MB/s)	Write (MB/s)	SEQ1M Q8T1	2232.97	1062.56	SEQ128K Q32T1	2229.39	1068.21	RND4K Q32T16	333.93	746.29	RND4K Q1T1	38.60	185.06
	Read (MB/s)	Write (MB/s)														
SEQ1M Q8T1	2232.97	1062.56														
SEQ128K Q32T1	2229.39	1068.21														
RND4K Q32T16	333.93	746.29														
RND4K Q1T1	38.60	185.06														

Note : Results may differ from various flash configurations or host system setting.

5. System Install Test

Test Item	Test method	Pass criteria	Result
Windows 11	Use installation flash drive, each driver is installed	Install the system without error	PASS
Windows 10			PASS

**B. System Stress Test**

**1. Warm Boot Test**

Test Item	Test method	Pass criteria	Result
Warm Boot	Test cycle : 3000 cycles OS : Windows 11 Utility : PassMark Rebooter	The system not crash, no error found	PASS

**2. Cold Boot Test**

Test Item	Test method	Pass criteria	Result
Cold Boot	Test cycle : 3000 cycles OS : Windows 10 Utility : HD_Speed Apacer Power Box : Power ON : 3 mins Power OFF : 30 secs	The system not crash, reboot cycle and power box cycle should be the same	PASS

**3. Sleep Test**

Test Item	Test method	Pass criteria	Result
Sleep	Test cycle : 3000 cycles OS : Windows 11 Utility : PassMark Sleeper	The system not crash, no error found	PASS

**4. Iometer Test**

Test Item	Test method	Pass criteria	Result
4K random script, 70% Write 30% Read	Test duration : 24 hours each item  OS : Windows 10  Utility : Iometer 2010	No error found in each item	PASS
1MB random script, 100% Write			PASS
4 JEDEC script			PASS
Pseudo random/24 patterns			PASS

**5. BurnIn Test**

Test Item	Test method	Pass criteria	Result
BurnIn Test	Test duration : 168 hours OS :Windows 10 Utility : PassMark BurnInTest	The test result show PASS	PASS

**C. Application Test**

**1. RAID Function Test**

RAID Mode	Test Item	Test method	Pass criteria	Result
RAID 0	Install System	Test duration : BurnIn Test 24 hours Rebuild 40cycle	Install the system without error, system not crush, burnin test result show PASS	PASS
	BurnIn Test			PASS
RAID 1	Install System	OS : Windows 11		PASS
	BurnIn Test	Utility : PassMark BurnInTest		PASS
	Rebuild	IRST		PASS

## D. Platform Compatibility Test

Pass criteria		
The target SSD can be recognized/detected on below test platforms (select one from the same chipset)		
Item	Chipset	M/B
1	Intel H97	ASUS H97M-E
2	Intel Z97	Gigabyte GA-Z97X-UD3H
3	Intel Z170	ASUS Z170-A
4		Gigabyte GA-Z170X-Gaming 3
5		Gigabyte GA-Z170MX-Gaming 5
6		Gigabyte GA-Z170-HD3P
7	Intel Z270	Asus PRIME Z270-A
8		Gigabyte GA-Z270X-Gaming 5
9	Intel H370	Asus TUF H370-PRO GAMING (WI-FI)
10		Gigabyte H370 HD3
11	Intel Z390	ASUS PRIME Z390-A
12		Gigabyte GA-Z390 AORUS PRO WIFI
13		Gigabyte Z390 AORUS ELITE
14	Intel Z490	ASUS PRIME Z490-A
15		Gigabyte Z490 AORUS Elite AC
16	AMD X570	ASUS TUF Gaming X570-Plus WiFi
17		Gigabyte X570 AORUS Elite WIFI
18	Intel Z590	Asus PRIME Z590-A
19	Intel Z690	Asus PRIME Z690-A

**E. Test Software Information**

Item	Test Software	Remark
1	CrystalDiskMark	
2	PassMark BurnInTest	
3	PassMark Rebooter	
4	PassMark Sleeper	
5	Iometer 2010	
6	Intel Rapid Storage Technology	
7	HD_Speed	
8	Apacer SSDWidget2.0	
9	Apacer SDSMART	For SD Card Product
10	Apacer USBSMART	For USB Product

**F. Additional Qualification:**

**1. Environmental**

- 1. RoHS Standard 2011/65/EU , 2015/863/EU
- 2. Other Environmental Standard EC/1907/2006 ,(EU)757/2010,(EC)850/2004
- 3. WEEE (By Product) 2012/19/EU
- 4. Battery Standard N/A
- 5. Packing Standard 94/62/EC, 2013/2/EU
- 6. Others GB/T 26572-2011

**2. Certification**

- 1.  CE No. \_\_\_\_\_
- 2.  FCC No. \_\_\_\_\_
- 3.  BSMI No. \_\_\_\_\_
- 4.  VCCC No. \_\_\_\_\_
- 5.  C-tick No. \_\_\_\_\_
- 6.  Other \_\_\_\_\_