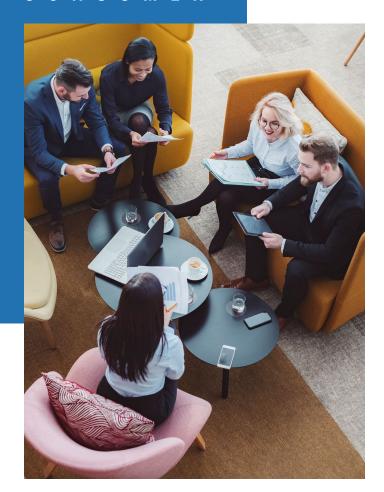
PHISON

CONSUMER



World's First Native USB 3.2 Controllers

Phison's native USB 3.2 controller solutions duo eliminates bridge boards to enable compact single-chip portable SSDs. PS2251-17 and PS2251-18 are native controller ICs that prevail in low cost and heat dissipation with mainstream manufacturing process and design while offering excellent performance and power efficiency. The powerful duo is the answer to modern day world storage needs in gaming consoles, laptops, and mobile devices.



U32C / U32C Pro

Powered by Phison PS2251-17 and PS2251-18 controllers, the U32C and U32C Pro external SSDs offer excellent data transfer speeds with low power consumption in compact single-board designs. U32C provides entry-level storage performance with up to 2TB storage capacity while U32C Pro excels with extreme data transfer speeds with capacity of up to 4TB. Make your pick for you perfect design to empower applications from laptops to gaming and beyond.

PS2251-17

Features	Specifications			
Interface	 USB 3.2 Gen 2 x1 (10Gbps) Compliant with USB 3.2 Gen1 (5Gbps) Compliant with USB 2.0 (480Mbps) Compliant with USB 1.1 (12Mbps) 			
NAND Characteristic	 2 Channels with 16 Chip Enable (CE) counts within single-chip design Up to 800 MT/s transfer rate 250GB to 2TB capacity support TLC and QLC NAND flash technology support Compliant with Toggle 1.0/2.0/3.0/4.0 NAND flash interfaces Compliant with ONFI 2.0/3.0/4.1 NAND flash interfaces 1.2V/1.8V NAND IO operating voltage supply 			
Power Consumption ¹ (Average)	 Read: 500 mA Write: 550 mA Idle: 100 mA Suspend: 2.5 mA 			
Data Reliability	LDPC ECC protection			
OS compatibility	 Windows XP and later versions MAC OS 10.8 and later versions Linux kernel 2.4.10 and later versions 			
Temperature Range	Operating range: 0~70 °C Storage range: -40~85 °C			
Environmental	• Humidity: 20%~90%			
Certification	USB IF Compliance			

^{1.} The above values are for reference only, it may change according to the flash memory used.



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PS2251-18

Features	Specifications
Interface	 USB 3.2 Gen 2 x2 (20Gbps) Compliant with USB 3.2 Gen 2 x1 (10Gbps) Compliant with USB 3.2 Gen1 (5Gbps) Compliant with USB 2.0 (480Mbps) Compliant with USB 1.1 (12Mbps)
NAND Characteristic	 2 Channels with 16 Chip Enable (CE) counts within single-chip design Up to 1200 MT/s transfer rate 500GB to 4TB capacity support TLC and QLC NAND flash technology support Compliant with Toggle 1.0/2.0/3.0/4.0 NAND flash interfaces Compliant with ONFI 2.0/3.0/4.1 NAND flash interfaces 1.2V/1.8V NAND IO operating voltage supply
Power Consumption ¹ (Average)	 Read: 550 mA Write: 650 mA Idle: 160 mA Suspend: 2.5 mA
Data Reliability	LDPC ECC protection
OS compatibility	 Windows XP and later versions MAC OS 10.8 and later versions Linux kernel 2.4.10 and later versions
Temperature Range	 Operating range: 0~70 °C Storage range: -40~85 °C
Environmental	• Humidity: 20%~90%
Certification	USB IF Compliance

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SOLUTIONS

U32C (PS2251-17) Performance with 3D TLC							
	250GB	500	500GB				
Sequential Read (MB/s)	1000	1000		1000			
Sequential Write (MB/s)	800	80	800				
Random Read (MB/s)	200	20	200				
Random Write (MB/s)	280	28	280				
U32C (PS2251-17) Performance with 3D QLC							
	250GB	500	500GB				
Sequential Read (MB/s)	1000	10	1000				
Sequential Write (MB/s)	700	80	800				
Random Read (MB/s)	150	20	200				
Random Write (MB/s)	260	28	280				
U32C Pro (PS2251-18) Performance with 3D TLC							
	500GB	1000GB	2000GB	4000GB			
Sequential Read (MB/s)	1500	1600	1600	1600			
Sequential Write (MB/s)	900	1500	1500	1500			
Random Read (MB/s)	400	400	400	400			
Random Write (MB/s)	250	350	400	400			

^{1.} The performance is obtained from Crystal Disk Mark (Window 10). Performance may vary from flash configuration and platform.



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