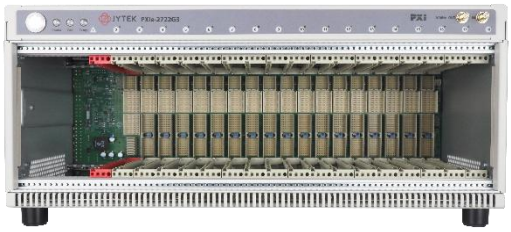
PXIe-2722 series

18-slot All-hybrid PXI Express Chassis



Please download JYTEK <JYPEDIA>, you can quickly inquire the product prices, the key features and available accessories.

Overview

PXIe-2722 series are a flexibility and high performance 18-slot all-hybrid PXIe chassis which features up to 24 GB/s system bandwidth and 58 W of power and cooling in every slot. Provide two major models: PCIe Gen 2 (PXIe-2722G2) and Gen 3 (PXIe-2722G3) to meet your bandwidth requirements.

Main Features

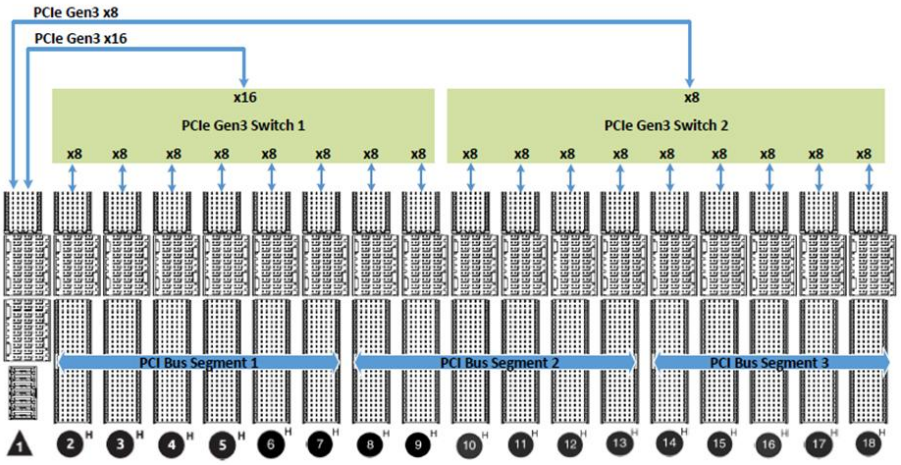
- PXI-5 PXI Express hardware specification Rev.1.0 compliant
- High data throughput 18-slot PCIe Gen2 (PXIe-2722G2) or Gen3 (PXIe-2722G3) PXIe chassis
- Up to 24 GB/s system bandwidth (PXIe-2722G3)
- Up to 8 GB/s slot bandwidth for all peripheral slots (PXIe-2722G3)
- High clock accuracy and low phase jitter
- Low power ripple-noise
- Specially designed for cost effective PXI/PXIe applications
- 0°C to 55°C extended operating temperature range
- Ideal for OEM vendors

Specifications

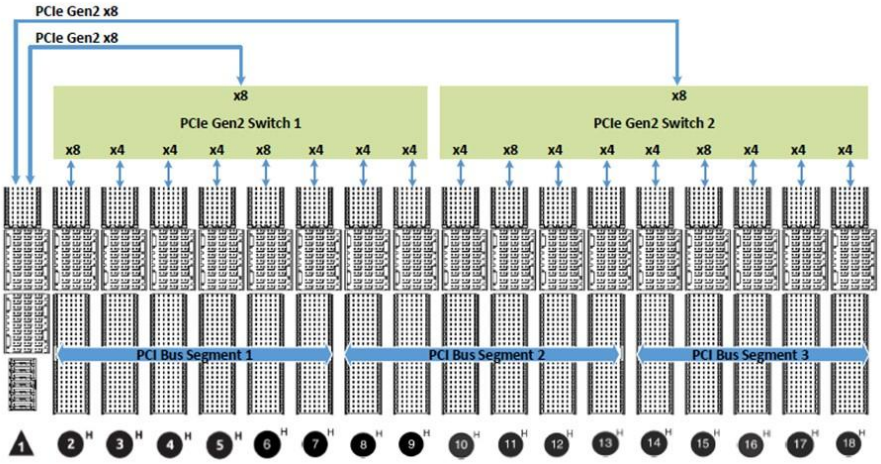
Basic

Descriptions	PXIe-2722G3	PXIe-2722G2
PXI Chassis Type	PXIe	PXIe
Slot Count	18	18
Maximum slot bandwidth	8 GB/s (PCIe Gen3 x8)	4 GB/s (PCIe Gen2 x4 or x8)
Maximum system bandwidth	24 GB/s (PCIe Gen3 x24)	8 GB/s (PCIe Gen2 x16)
Chassis Power Supply Type	AC	AC
Slot Cooling Capacity	58 W (0°C ~ 40°C) 38W (0°C ~ 55°C)	58 W (0°C ~ 40°C) 38W (0°C ~ 55°C)
Onboard Clock Type	VCXO	VCXO
External Clocking	Yes	Yes
Number of hybrid slots	17	17
Number of PXIe slots	0	0
Number of PXI slots	0	0
System timing slot	No	No
External Trigger Access	No	No
Redundant HW	No	No

Gen3 backplane configuration diagram



Gen2 backplane configuration diagram



Electrical

AC Input

Total Chassis Power	1436 W
Input voltage range	100 to 264 VAC
Input frequency	47~63 Hz
Input current rating	15-8 A
Efficiency	87%

DC Output

Total Available Power	1250W (0°C ~ 45°C , 220VAC) 1000W (45°C ~ 55°C , 220VAC)
+3.3 V	77 A
+5 V	53 A
+12 V	104 A
–12 V	5 A
5 Vaux	3 A
+3.3V Load Regulation	5%
+5V Load Regulation	5%
+12V Load Regulation	5%
-12V Load Regulation	5%
5Vaux Load Regulation	5%
+3.3V Maximum Ripple and Noise	50 mVpp
+5V Maximum Ripple and Noise	50 mVpp
+12V Maximum Ripple and Noise	120 mVpp
-12V Maximum Ripple and Noise	120 mVpp
5Vaux Maximum Ripple and Noise	50 mVpp

Maximum power dissipation

System Controller Slot	140W
Hybrid Peripheral Slot	58W

System Controller Slot Current Capacity

+3.3 V	15 A
+5 V	15 A
+12 V	30 A
5 Vaux	3 A

Hybrid Peripheral Slot with PXI-5 Peripheral Slot Current Capacity

+3.3 V	9 A
+12 V	6 A
5 Vaux	1 A

Hybrid Peripheral Slot with PXI-1 Peripheral Slot Current Capacity

+3.3 V	6 A
+5 V	6 A
+12 V	1 A
–12 V	1 A
V (I/O)	11 A

System Synchronization Clock

PXI_CLK10

Maximum slot-to-slot skew	160 ps
Accuracy	±25 ppm max
Phase-jitter (Typ)	2.3 ps RMS phase-jitter (10 Hz–900 kHz range)
Duty-factor	45%–55%
Unloaded signal swing	3.3 V ±0.3 V

PXIe_CLK100

Maximum slot-to-slot skew	125 ps
Accuracy	±25 ppm max
Phase-jitter (Typ)	2.0 ps RMS phase-jitter (10 Hz–10 kHz range) 320 fs RMS phase-jitter (10 kHz–900 kHz range)
Duty-factor	45%–55%
Absolute differential voltage	400–1000 mV

PXIe_SYNC100

Maximum slot-to-slot skew	125 ps
Accuracy	±25 ppm max
Phase-jitter (Typ)	2.0 ps RMS phase-jitter (10 Hz–10 kHz range) 580 fs RMS phase-jitter (10 kHz–900 kHz range)
Duty-factor	10%
Absolute differential voltage	400–1000 mV

External 10 MHz Reference Output (SMA connector)

Accuracy	±25 ppm max
Phase-jitter (Typ)	2.3 ps RMS phase-jitter (10 Hz–900 kHz range)
Output amplitude	1 VPP ±20% square-wave into 50 Ω 2 VPP unloaded
Output impedance	50 Ω ±5 Ω

External 10 MHz Reference Input (SMA connector)

Frequency	10 MHz ±100 PPM
Input amplitude	100 mVPP to 5 VPP square-wave or sine-wave
Input impedance	50 Ω ±5 Ω

Physical and Environment

Operating Environment

Maximum altitude	5000 m
Ambient temperature range	0 to 55 °C
Relative humidity range	10 to 90%, noncondensing

Storage Environment

Ambient temperature range	-40°C to 70°C
Relative humidity range	5% to 95% noncondensing

Shock and Vibration

Operational shock	30 g peak, half-sine, 11 ms pulse duration
Random Vibration (Operating)	5 to 500 Hz, 0.3 Grms, 3 axes
Random Vibration (Nonoperating)	5 to 500 Hz, 2.46 Grms, 3 axes

Sound Pressure Level

Auto fan (up to ~25 °C ambient)	46 dBA
High fan	64 dBA

Sound Power

Auto fan (up to ~25 °C ambient)	56 dBA
High fan	76 dBA

Backplane

Size	3U

Chassis Size and Weight

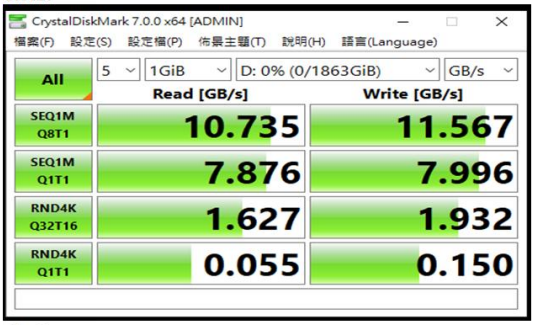
Descriptions	PXIe-2722G3	PXIe-2722G2
Width	440.2 mm	440.2 mm
Depth	455.2 mm	455.2 mm
Height	177.8 mm	177.8 mm
Net Weight	12.65 kg	12.65 kg
Gross Weight (with package, power cable)	16.55 kg	16.55 kg

Performance Test

PXIe-2722G3 PCIe Bus Throughput

Slot	Fixture	Test Result
1	PXIe-63987 + PXIe RAID Card*2 + Samsung 970 EVO Plus SSD 500MB *4	Upstream: 10.7GB/s Downstream: 11.5GB/s
2	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.7GB/s Downstream: 6.5GB/s
3	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.8GB/s Downstream: 6.5GB/s
4	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.6GB/s Downstream: 6.5GB/s
5	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.7GB/s Downstream: 6.5GB/s
6	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.4GB/s Downstream: 6.5GB/s
7	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.9GB/s Downstream: 6.5GB/s
8	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 7.2GB/s Downstream: 6.5GB/s
9	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.5GB/s Downstream: 6.5GB/s
10	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.5GB/s Downstream: 6.5GB/s
11	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.6GB/s Downstream: 6.5GB/s
12	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.6GB/s Downstream: 6.5GB/s
13	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.8GB/s Downstream: 6.5GB/s
14	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.5GB/s Downstream: 6.5GB/s
15	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.5GB/s Downstream: 6.5GB/s
16	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.9GB/s Downstream: 6.5GB/s
17	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.7GB/s Downstream: 6.5GB/s
18	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 500MB *2	Upstream: 6.5GB/s Downstream: 6.5GB/s

Slot1:



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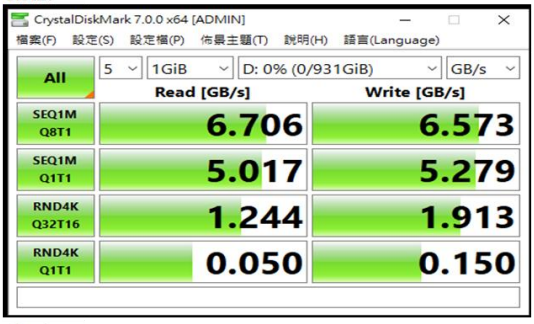

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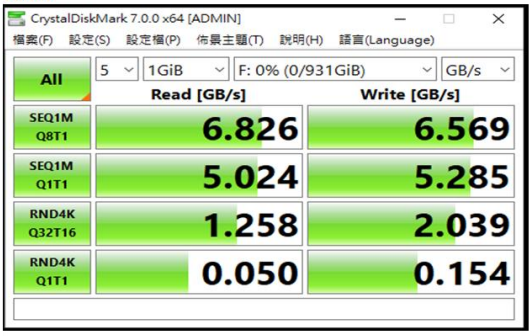

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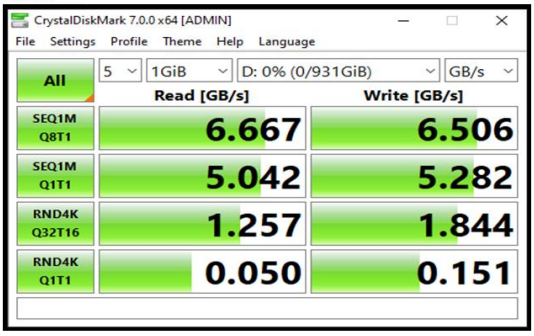

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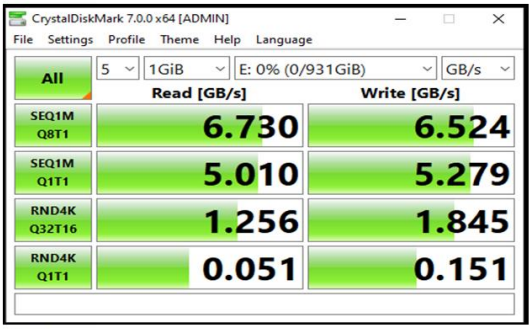

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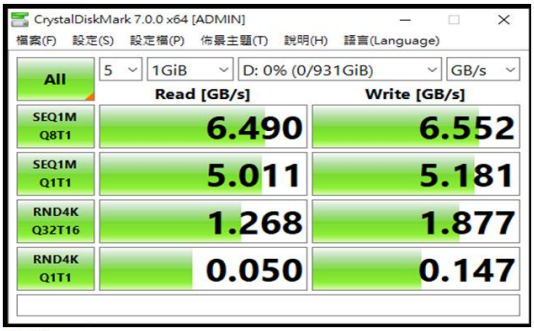

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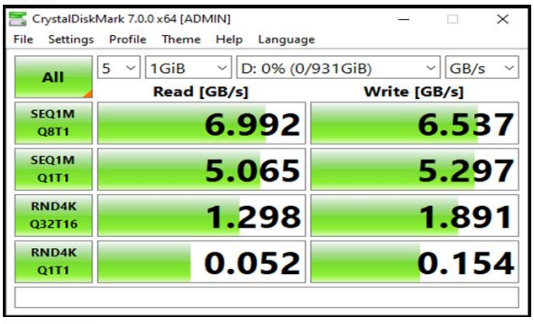

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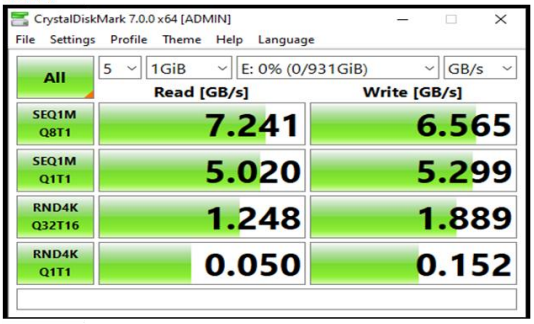

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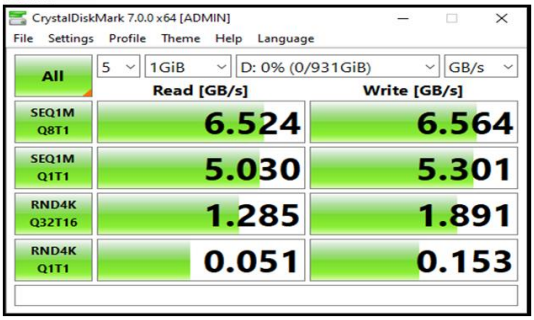

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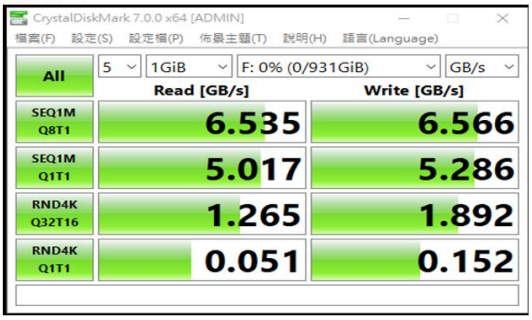

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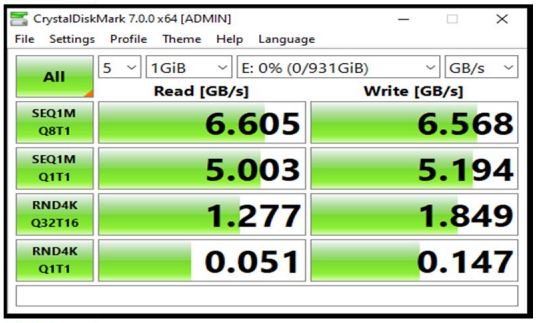

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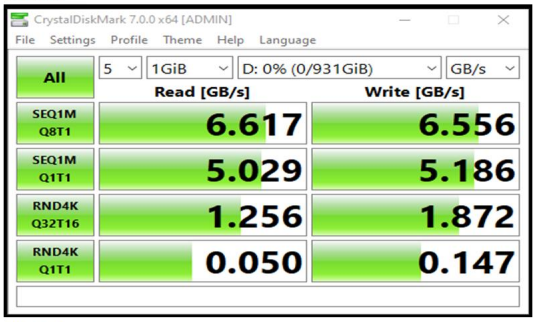

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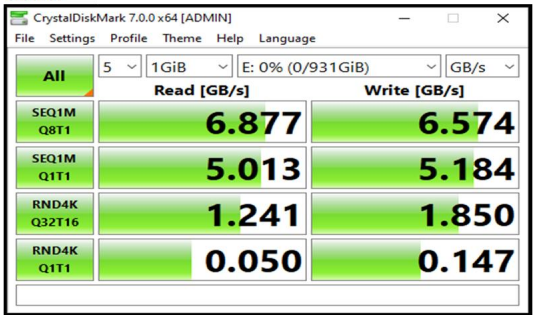

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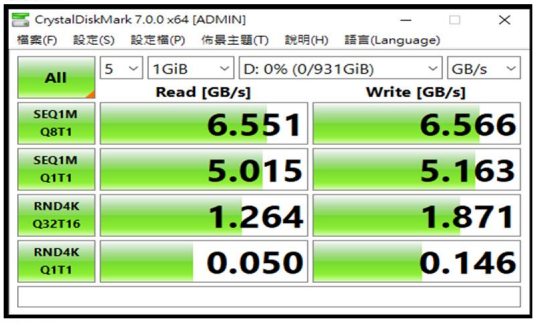

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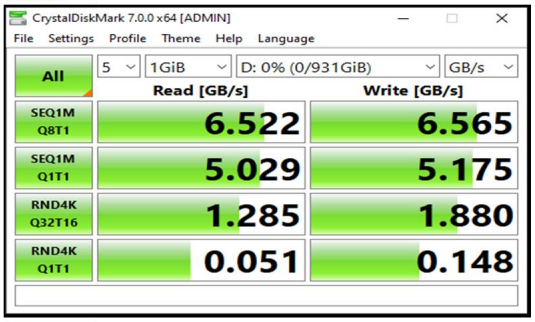

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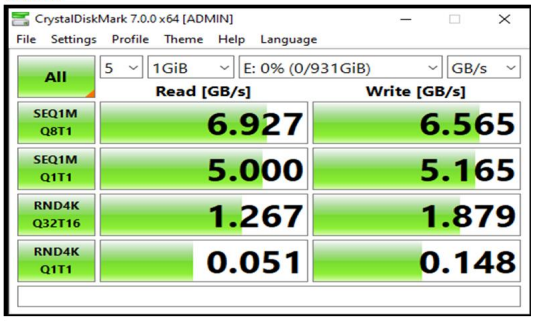

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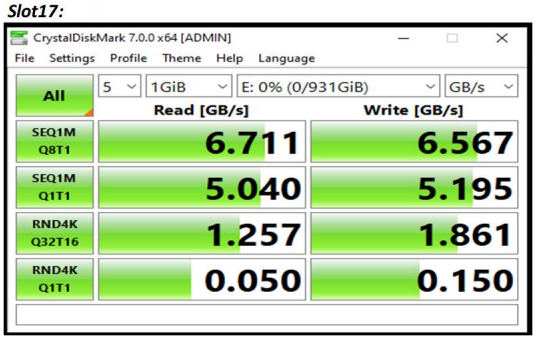

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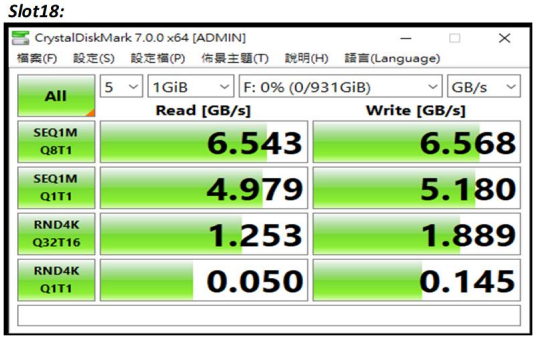
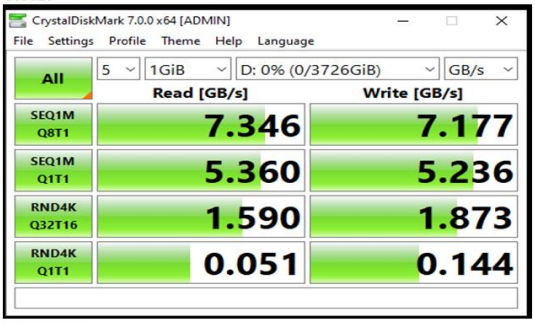


Note: PXIe-63987 has only 16GB/s PCIe bus bandwidth.

PXIe-2722G2 PCIe Bus Throughput

Slot	Fixture	Test Result
1	PXIe-63987 + PXIe RAID Card*2 + Samsung 970 EVO Plus SSD 1TB *4	Upstream: 7.3GB/s Downstream: 7.1GB/s
2	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 3.6GB/s Downstream: 3.5GB/s
3	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
4	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
5	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
6	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 3.6GB/s Downstream: 3.5GB/s
7	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
8	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
9	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
10	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
11	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 3.6GB/s Downstream: 3.5GB/s
12	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
13	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
14	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
15	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 3.6GB/s Downstream: 3.5GB/s
16	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
17	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s
18	PXIe-63987 + PXIe RAID Card*1 + Samsung 970 EVO Plus SSD 1TB *2	Upstream: 1.8GB/s Downstream: 1.7GB/s

Slot1:



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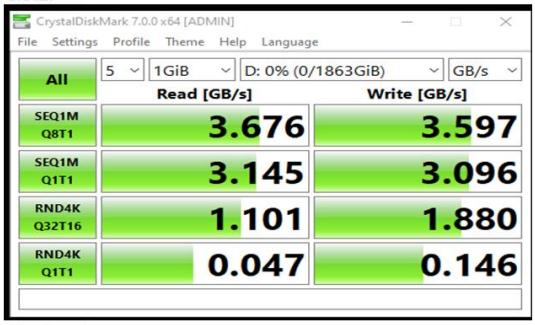

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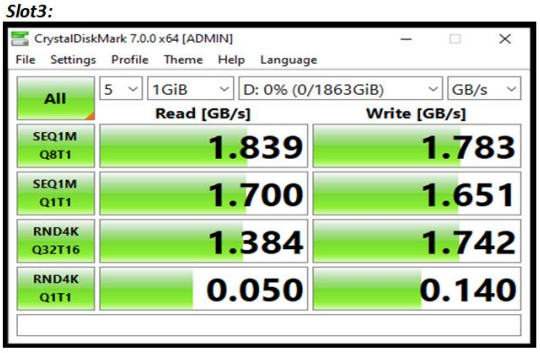

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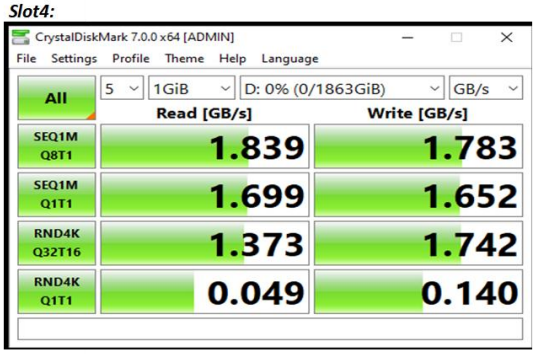

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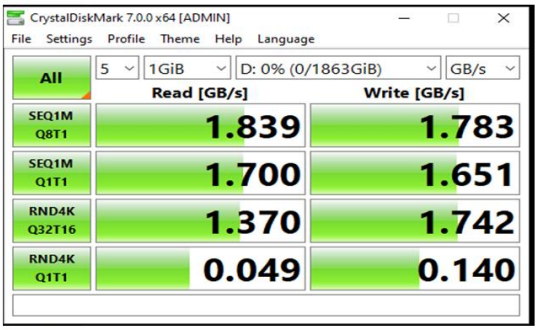

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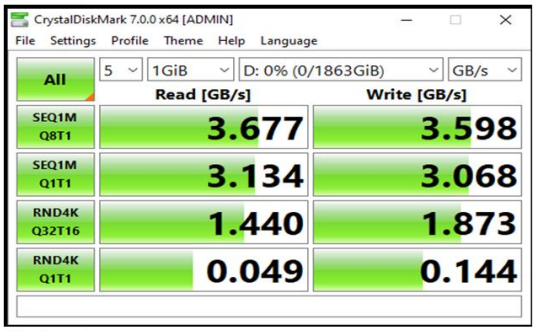

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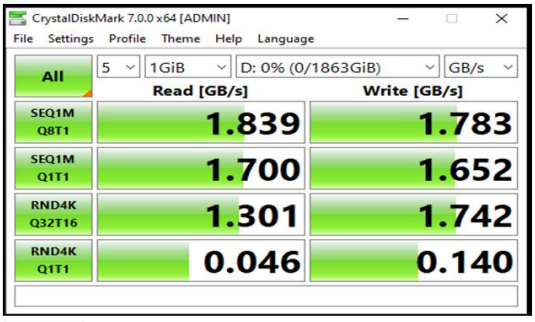

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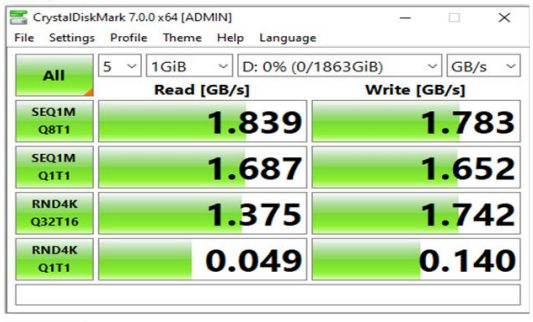

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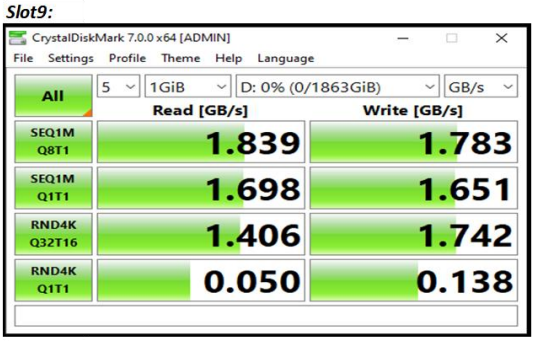

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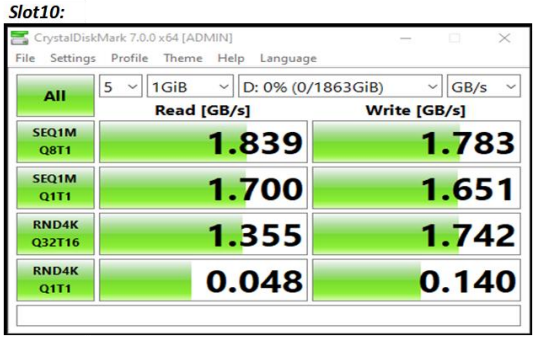

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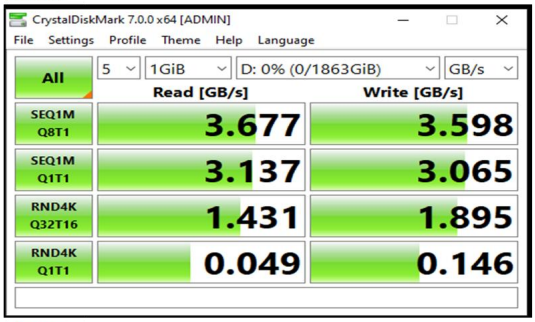
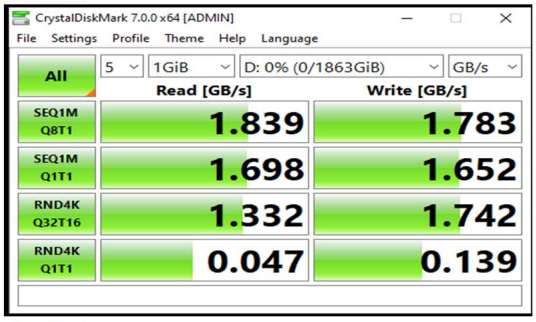


Slot12:



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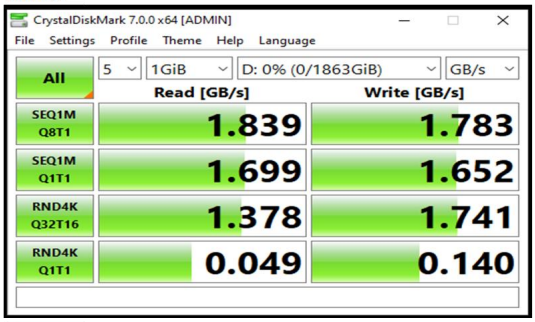

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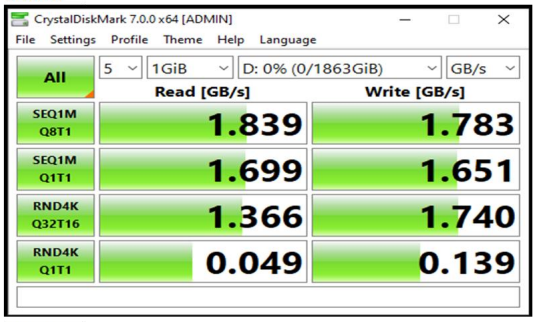

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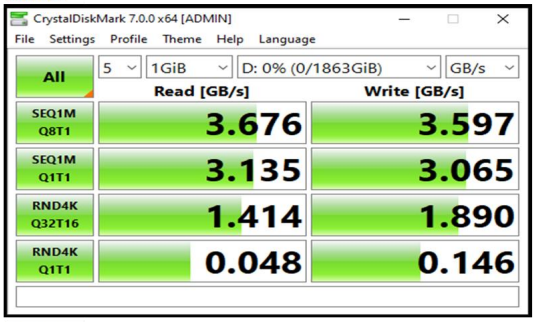

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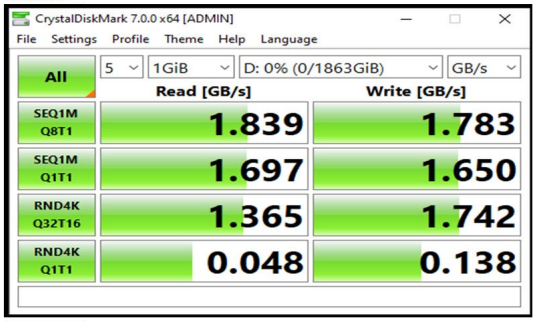

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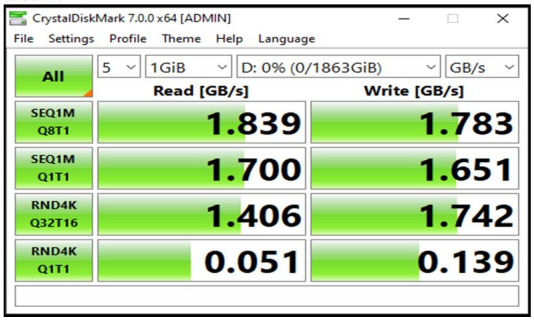

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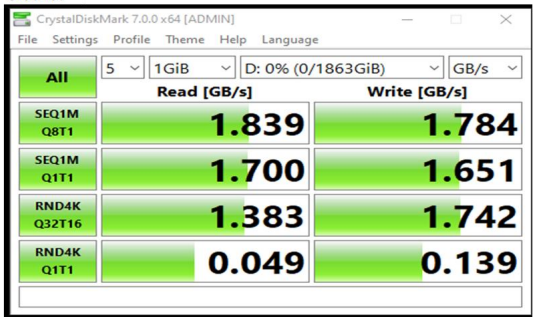

Order Information

- PXIe-2722G3 (PN: JY2722010-01)
  3U 18-slot All-hybrid PXI Express Gen3 Chassis ,24GB/s system bandwidth
- PXIe-2722G2 (PN: JY2722020-01)
  3U 18-slot All-hybrid PXI Express Gen2 Chassis,8GB/s system bandwidth

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Revision History

Revision	Description	Date
1.7.3		2022-01-12
1.8	Updated the power, clock and operating environment specifications.	2026-08-03

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