



# PERFORMANCE TEST REPORT



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# Performance Test ROC230-AC

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# 1. SPECIFICATION

## 1-1. SYSTEM CONFIGURATION

<b>Motherboard</b>	X12SDV-8C-SPT4F (TDP : 67W) Intel® Xeon® Processor D-1736NT Single Socket FCBGA-2227 supported, CPU TDP supports Up to 67W TDP Dual LAN with 25G SFP28 LAN via SoC Controller Dual LAN with 10GBase-T with Intel® X550 Controller IPMI: ASPEED AST2600 BMC BIOS Version: 1.0
<b>CPU</b>	Intel® Xeon® D Processor Total Cores: 8 Performance-cores: 8 Total Threads: 16 Max Turbo Frequency: 3.50 GHz Processor Base Frequency: 2.70 GHz Cache: 15M TDP: 67 W Intel® Deep Learning Boost (Intel® DL Boost) on CPU:Yes
<b>Memory</b>	SAMSUNG 64GB 2Rx4 PCx4 PC4-3200AA-RB4-12-DC *1pcs
<b>Storage</b>	7SARLAKE M.2 SSD 256GB *1pcs

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### 1-2. PRODUCT INTERIOR PHOTO



## 2. TEST PLAN

### 2-1. THERMAL MEASUREMENT PROCESS

<p>Test Purpose</p>	<p>The purpose of conducting thermal profile testing is to identify potential thermal issues in the Equipment Under Test (EUT). Given that semiconductor failure rates increase significantly with rising junction temperatures, this testing contributes to the overall assessment of product reliability.</p> <p>As the system undergoes a cooling phase, operational modes may shift depending on stack configuration, temperature, and heat dissipation characteristics. Thermal mapping provides critical insight for optimizing thermal management strategies and determining the most effective component layout and monitoring arrangements.</p>
<p>Test Equipment</p>	<p>1. KSON THS-B4T-150 Chamber.</p>
<p>Quantity Tested</p>	<p>Minimum 1 Set</p>
<p>Test Software</p>	<p>1.CPU Stress: PassMark BurnIn Test Professional 9.0 build 1014 2.LAN Speed Test: iPerf3 3.USB Test: PassMark USB 2.0 Loop Back Plug 4.USB Test: PassMark USB 3.0 Loop Back Plug</p>
<p>Test Procedure</p>	<ol style="list-style-type: none"> <li>1. Thermal Pre-Scan Measurement:             <ul style="list-style-type: none"> <li>Temperature Range: <b>-20°C to 60°C</b></li> <li>Humidity Condition: <b>60% RH</b> (when temperature exceeds 25°C)</li> </ul> </li> <li>2. Actual Thermal Measurement Procedure:             <ol style="list-style-type: none"> <li>2.1. Identify the test points using the infrared thermal image and attach thermocouples to the identified hot spots.</li> <li>2.2. Place the Equipment Under Test (EUT) in the thermal chamber and configure the test temperature profile according to the specified requirements.</li> <li>2.3. Power on the EUT after closing the thermal chamber. Boot into Windows 10 Pro and initiate a maximum power consumption and stress test.</li> <li>2.4. After running the test software continuously for 8 hours, record the peak temperature observed at each thermocouple measurement point.</li> <li>2.5. Power off both the thermal chamber and the EUT.</li> <li>2.6. Verify that the recorded temperature data for each component remains within its specified operating temperature range, as defined in the component specification or approval documents.</li> </ol> </li> </ol>
<p>Test Diagram of Curves</p>	<p>Environment defines for 66 hours.</p>

## 2.2. TEST RESULT

### 2-2-1. Temperature Cycle

Aging tests were performed on individual components across a range of temperature settings, under both maximum load and full load conditions, to evaluate thermal endurance and operational stability over time.

Test Temperature	Test Result
-20°C	PASS
0°C	PASS
25°C / 60%RH	PASS
40°C / 60%RH	PASS
50°C / 60%RH	PASS
60°C / 60%RH	PASS

## Performance Test

# ROC230-AC

### 2-2-2. I/O Function

Confirm that the system specifications and all input/output (I/O) interfaces are correctly configured and functioning as intended, in accordance with the defined technical standards.

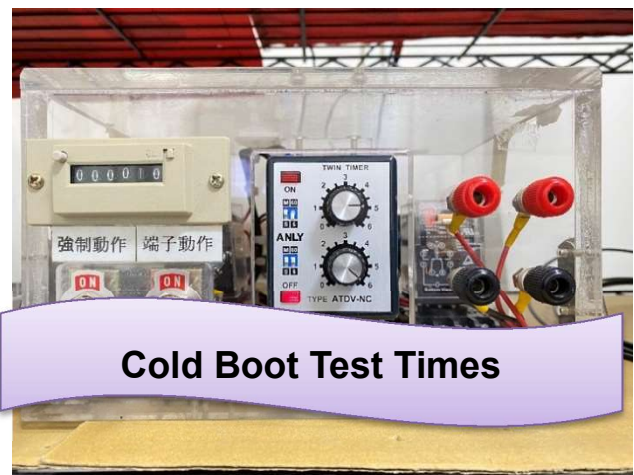
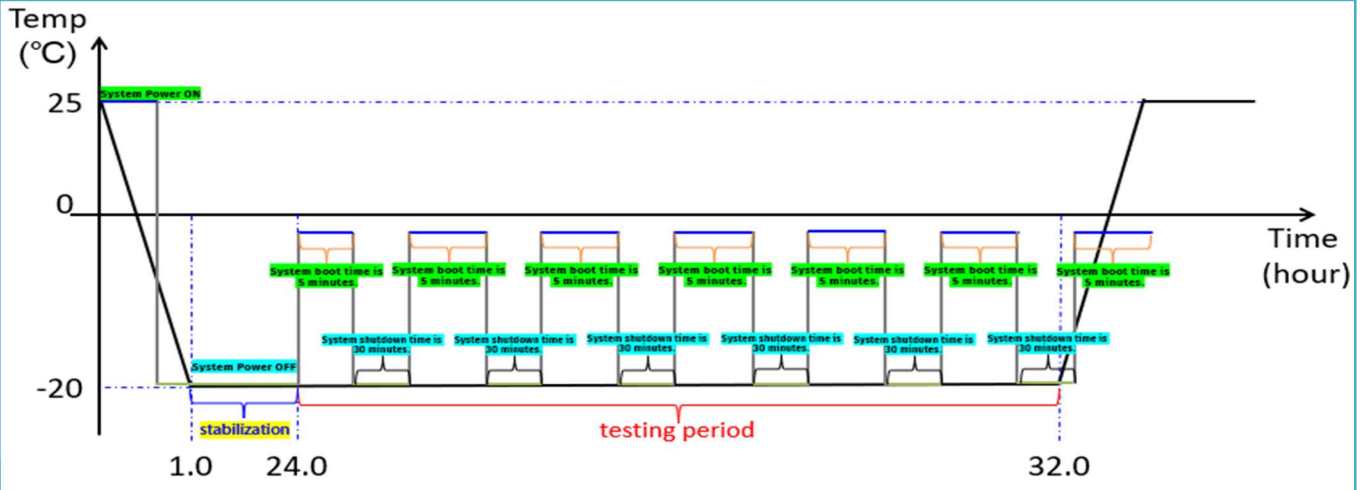
Item	Test Criteria	Result
<b>LAN Port</b> ( 25Gbps)	Data transmission via connection to a 25Gbps LAN switch has been tested. The transfer speed meets the required standard with zero packet loss, confirming normal functionality.	<b>PASS</b>
<b>LAN Port</b> ( 25Gbps)	Data transmission via connection to a 25Gbps LAN switch has been tested. The transfer speed meets the required standard with zero packet loss, confirming normal functionality.	<b>PASS</b>
<b>LAN Port</b> ( 10Gbps)	Data transmission via connection to a 10Gbps LAN switch has been tested. The transfer speed meets the required standard with zero packet loss, confirming normal functionality.	<b>PASS</b>
<b>LAN Port</b> ( 10Gbps)	Data transmission via connection to a 10Gbps LAN switch has been tested. The transfer speed meets the required standard with zero packet loss, confirming normal functionality.	<b>PASS</b>
<b>USB Port</b> ( 3.0 )	A PassMark USB 3.0 Loopback was connected for testing and was found to be functioning normally.	<b>PASS</b>
<b>USB Port</b> ( 3.0 )	A PassMark USB 3.0 Loopback was connected for testing and was found to be functioning normally.	<b>PASS</b>
<b>IPMI Port</b>	Check work well	<b>PASS</b>
<b>USB Port</b> ( 2.0 )	A PassMark USB 2.0 Loopback was connected for testing and was found to be functioning normally.	<b>PASS</b>
<b>USB Port</b> ( 2.0 )	A PassMark USB 2.0 Loopback was connected for testing and was found to be functioning normally.	<b>PASS</b>
<b>VGA Port</b>	The VGA output was verified to be working properly with a resolution of 1920x1080 .	<b>PASS</b>

# Performance Test ROC230-AC

## 2-2-3. Low Temperature Power Cycle Test

Apply power to the system under a -20°C ambient condition and confirm successful system boot-up, ensuring stable initialization and operation at low temperatures.

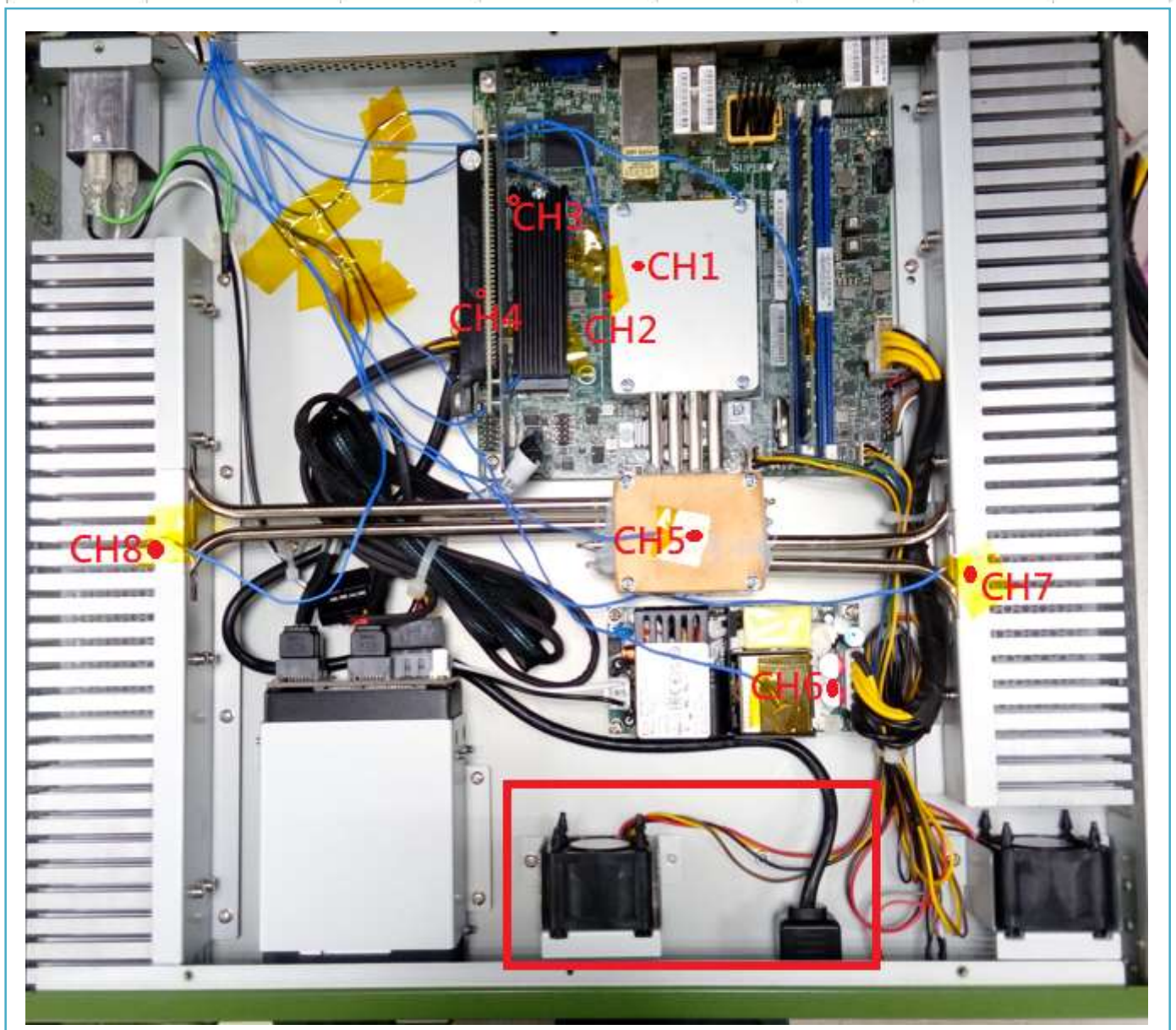
Ambient Temp.	Cold Boot Test Times	Test Result
-20°C	10 times	<b>PASS</b>



### 3. TEST PHOTO IN LAB

#### 3-1. THERMOCOUPLE PLACEMENT

Measurement Point	Components	Measurement Point	Components	Measurement Point	Components	Measurement Point	Components
CH1	CPU Integrated Heat Spreader	CH7	Right Side System Heat Sink	CH13	N/A	CH19	N/A
CH2	CPU Heat Sink	CH8	Left Side System Heat Sink	CH14	N/A	CH20	N/A
CH3	M.2	CH9		CH15	N/A	CH21	N/A
CH4	DRAM	CH10	N/A	CH16	N/A	CH22	N/A
CH5	Heat-Pipe Heat Sink	CH11	N/A	CH17	N/A	CH23	N/A
CH6	Power Supply	CH12	N/A	CH18	N/A	CH24	N/A



# Performance Test ROC230-AC

## 3-2. ENVIRONMENTAL TEMPERATURE TEST

### Chamber in -20°C

**BurnInTest V9.0 Pro (1014)**  
 Dashboard System Information Event Log Temperature  
 Current configuration  
 Start time: Tue May 19 13:04:23 2026  
 Stop time: -  
 Duration: 022h 57m 01s  
**STOP**  
**CPU Test**  
 Test Threads Millions of Operations Executed Verified  
 General: 0 264519273.0 264519273.0  
 Floating Point: 2 474565054.0 474565054.0  
 Extensions: 11 408642434.8 408642434.8  
 Primes: 3 816288.1 816288.1  
 Max Heat: N/A  
 \*Extensions: SSE/2/3, SSE4.1/4.2, AES  
**Disk (C:) Test (1 of 1)**  
 Disk C: - Cycle 3086 Writing High freq  
 Free disk scan progress: 2%  
 Free disk scan progress: 61%  
 Pattern: High Low freq  
 MBytes Written: 8395324.0  
 MBytes Verified: 7505152.0  
 Current Speed: 806.0 MB/Sec  
**Memory (RAM) Test**  
 Cycle 1835: Testing  
 Pattern: 64-bit Sequence (0,1,2...)  
 Total RAM: 65121.8 MB  
 Free RAM: 20502.0 MB  
**RUNNING (0 Errors)**

**WinInfo v8.30-5800 - Sensors Status**  
 System: Supermicro Super Server  
 CPU [#0]: Intel Xeon D-1736NT  
 CPU [#0]: Intel Xeon D-1736NT: DTS  
 Core Temperatures: 48 °C (Current), 40 °C (Minimum), 52 °C (Maximum), 46 °C (Average)  
 Core 0: 50 °C, 42 °C, 52 °C, 46 °C  
 Core 1: 50 °C, 40 °C, 51 °C, 45 °C  
 Core 2: 47 °C, 44 °C, 50 °C, 47 °C  
 Core 3: 44 °C, 41 °C, 47 °C, 44 °C  
 Core 4: 46 °C, 41 °C, 47 °C, 44 °C  
 Core 5: 46 °C, 41 °C, 47 °C, 45 °C  
 Core 6: 50 °C, 43 °C, 51 °C, 47 °C  
 Core 7: 48 °C, 43 °C, 50 °C, 47 °C  
 Core Distance to TJMAX: 52 °C, 48 °C, 60 °C, 54 °C  
 Core 0 Distance to TJMAX: 50 °C, 48 °C, 58 °C, 54 °C  
 Core 1 Distance to TJMAX: 50 °C, 49 °C, 60 °C, 55 °C  
 Core 2 Distance to TJMAX: 53 °C, 50 °C, 56 °C, 53 °C  
 CPU Utilization: 100% 3.18 GHz  
 Memory: 43.6/63.6 GB (69%)  
 Disk 0 (C:): 57%  
 Ethernet: 0 R: 0 Kbps  
 Processes: 135, Threads: 1432, Handles: 47082  
 Base speed: 3.18 GHz  
 Sockets: 1  
 Cores: 8  
 Logical pro: 8  
 Virtualized: 0  
 L1 cache: 32 KB



Measuring Point	Ambient Temp.	-20°C 0% RH
	CPU Max Temperature (Unit: °C)	52°C
	CPU Core Frequency (Unit: GHz)	3.18 GHz
CH1	CPU Integrated Heat Spreader	23.5°C
CH2	CPU Heat-sink	23.3°C
CH3	M.2	24.6°C
CH4	DRAM	17.8°C
CH5	Heat-Pipe Heat Sink	14.2°C
CH6	Power Supply	-0.7°C
CH7	Right Side System Heat Sink	0.8°C
CH8	Left Sidede System Heat Sink	-12.8°C



# Performance Test ROC230-AC

## - Chamber in 0°C

**BurnInTest V9.0 Pro (1014)**  
 Dashboard System Information Event Log Temperature  
 Start time: Tue May 19 13:04:23 2026  
 Stop time: -  
 Duration: 024h 44m 44s

**CPU Test**  
 Test Threads Millions of Operations Verified  
 General: 2 285628927.5 285628927  
 Floating Point: 8 512719220.5 512719220  
 Extensions: 6 441336187.3 441336187  
 Primes: 0 881942.2 881942.2  
 Max Heat: N/A  
 \*Extensions: SSE/2/3,SSE4.1/4.2,AES

**Disk (C:) Test (1 of 1)**  
 Disk C: - Cycle 3315 Writing (Disk 1/1)  
 Free disk scan progress: 35%  
 Pattern: Zeros data pa  
 MBytes Written: 9035732.0  
 MBytes Verified: 8062080.0  
 Current Speed: 160.8 MB/Sec

**Memory (RAM) Test**  
 Cycle 1966: Testing 59%  
 Pattern: 64-bit Binary 1 (10101010)  
 Total RAM: 65121.8 MB  
 Free RAM: 20531.3 MB

**WINFO 64 v8.30-5800 - Sensors Status**  
 System: Supermicro Super Server  
 CPU [#0]: Intel Xeon D-1736NT  
 CPU [#0]: Intel Xeon D-1736NT: DTS  
 Core Temperatures: 49 °C, 45 °C, 58 °C, 50 °C  
 Core 0: 49 °C, 47 °C, 58 °C, 52 °C  
 Core 1: 47 °C, 46 °C, 55 °C, 50 °C  
 Core 2: 51 °C, 50 °C, 55 °C, 51 °C  
 Core 3: 48 °C, 46 °C, 50 °C, 48 °C  
 Core 4: 47 °C, 46 °C, 51 °C, 48 °C  
 Core 5: 50 °C, 45 °C, 51 °C, 49 °C  
 Core 6: 50 °C, 48 °C, 55 °C, 52 °C  
 Core 7: 51 °C, 49 °C, 54 °C, 52 °C  
 Core Distance to TJMAX: 51 °C, 42 °C, 55 °C, 50 °C  
 Core 0 Distance to TJMAX: 51 °C, 42 °C, 53 °C, 48 °C  
 Core 1 Distance to TJMAX: 53 °C, 45 °C, 54 °C, 50 °C  
 Core 2 Distance to TJMAX: 49 °C, 45 °C, 50 °C, 49 °C

**Task Manager**  
 CPU: 100% 3.19 GHz  
 Memory: 43.5/63.6 GB (68%)  
 Disk 0 (C:): SSD 99%  
 Ethernet: S: 0 R: 0 Kbps

**System Performance**  
 CPU: Intel(R) Xeon(R) D-1736NT  
 100% Utilization  
 3.19 GHz  
 135 Processes, 1245 Threads, 46572 Handlers



Measuring Point	Ambient Temp.	0°C 0% RH
	CPU Max Temperature (Unit: °C)	58°C
	CPU Core Frequency (Unit: GHz)	3.19 GHz
CH1	CPU Integrated Heat Spreader	29.2°C
CH2	CPU Heat-sink	26.0°C
CH3	M.2	34.6°C
CH4	DRAM	25.4°C
CH5	Heat-Pipe Heat Sink	20.8°C
CH6	Power Supply	13.2°C
CH7	Right Side System Heat Sink	13°C
CH8	Left Sidede System Heat Sink	11.4°C



# Performance Test ROC230-AC

## - Chamber in 25°C / 60%RH

**BurnInTest V9.0 Pro (1014)**

Start time: Tue May 19 13:04:23 2026  
Stop time: -  
Duration: 028h 04m 04s

**CPU Test**

Test	Threads	Millions of Operations Executed	Verified
General:	2	322362423.4	322362423.4
Floating Point:	4	579451953.9	579451953.9
Extensions:	3	498816981.1	498816981.1
Primes:	7	1000862.5	1000862.5
Max Heat:		N/A	

\*Extensions: SSE/2/3, SSE4.1/4.2, AES

**Disk (C:) Test (1 of 1)**

Disk: C: - Cycle 3783 Writing Low freq. 81%

Free disk scan progress: 40%

Pattern: High Low freq  
MBytes Written: 10233408.0  
MBytes Verified: 9200256.0  
Current Speed: 182.6 MB/Sec

**Memory (RAM) Test**

Cycle 2256: Testing 85%

Pattern: 64-bit Binary 1 (10101010)  
Total RAM: 65121.8 MB  
Free RAM: 20504.2 MB

**System: Supermicro Super Server**

**CPU [#0]: Intel Xeon D-1736NT**

Core	Current	Minimum	Maximum	Average
Core 0	69 °C	61 °C	76 °C	68 °C
Core 1	67 °C	64 °C	76 °C	68 °C
Core 2	72 °C	66 °C	75 °C	70 °C
Core 3	65 °C	64 °C	70 °C	67 °C
Core 4	68 °C	61 °C	70 °C	67 °C
Core 5	68 °C	64 °C	71 °C	68 °C
Core 6	73 °C	64 °C	74 °C	70 °C
Core 7	71 °C	63 °C	74 °C	70 °C
Core Distance to TJMAX	31 °C	24 °C	39 °C	32 °C
Core 0 Distance to TJMAX	31 °C	24 °C	36 °C	32 °C
Core 1 Distance to TJMAX	33 °C	24 °C	38 °C	32 °C
Core 2 Distance to TJMAX	28 °C	25 °C	34 °C	30 °C

**CPU** Intel(R) Xeon(R) D-1736NT  
100% 3.19 GHz  
Memory 43.6/63.6 GB (69%)  
Disk 0 (C:) SSD 100%  
Ethernet Ethernet S: 0 R: 0 Kbps

Processors: 134  
Threads: 1353  
Handles: 46593

**Task Manager**

Performance: CPU 100% 3.19 GHz, Memory 43.6/63.6 GB (69%), Disk 0 (C:) SSD 100%, Ethernet Ethernet S: 0 R: 0 Kbps

Ready | Type here to search | 28°C | 5:08 PM 5/20/2026



Measuring Point	Ambient Temp.	25°C 60% RH
	CPU Max Temperature ( Unit: °C)	76°C
	CPU Core Frequency (Unit: GHz)	3.19 GHz
CH1	CPU Integrated Heat Spreader	46.7°C
CH2	CPU Heat-sink	44.8°C
CH3	M.2	48.8°C
CH4	DRAM	40.4°C
CH5	Heat-Pipe Heat Sink	38.8°C
CH6	Power Supply	34.1°C
CH7	Right Side System Heat Sink	33.7°C
CH8	Left Side System Heat Sink	33.8°C



# Performance Test ROC230-AC

## - Chamber in 40°C / 60%RH

The screenshot shows the BurnInTest V9.0 Pro interface on the left and Windows Task Manager on the right. The BurnInTest window displays a 'STOP' button, a 'RUNNING (0 Errors)' status bar, and test results for CPU, Disk, and Memory. The Windows Task Manager shows system information for a Supermicro Super Server with an Intel Xeon D-1736NT processor, running at 3.18 GHz with 69% memory utilization and 20% disk I/O.



Measuring Point	Ambient Temp.	50°C 60% RH
	CPU Max Temperature ( Unit: °C)	88°C
	CPU Core Frequency (Unit: GHz)	3.18 GHz
CH1	CPU Integrated Heat Spreader	61.0°C
CH2	CPU Heat-sink	57.8°C
CH3	M.2	58.3°C
CH4	DRAM	59.6°C
CH5	Heat-Pipe Heat Sink	46.2°C
CH6	Power Supply	49.7°C
CH7	Right Side System Heat Sink	49.2°C
CH8	Left Sidede System Heat Sink	48.7°C



# Performance Test ROC230-AC

## - Chamber in 50°C / 60%RH

The screenshot shows two windows: BurnInTest V9.0 Pro and Windows Task Manager. BurnInTest displays a 'STOP' button, 'Current configuration' (Start time: Tue May 19 13:04:23 2026, Stop time: -, Duration: 046h 54m 13s), and test results for CPU, Disk, and Memory. The CPU test shows 100% utilization at 3.17 GHz. The Disk test shows 25% progress. The Memory test shows 20% progress. Windows Task Manager shows CPU at 100% (3.17 GHz), Memory at 69%, and Disk I/O at 100%. A large green banner at the bottom of the BurnInTest window reads 'RUNNING (0 Errors)'.



Measuring Point	Ambient Temp.	50°C 60% RH
	CPU Max Temperature ( Unit: °C)	100°C
	CPU Core Frequency (Unit: GHz)	3.17 GHz
CH1	CPU Integrated Heat Spreader	71.0°C
CH2	CPU Heat-sink	67.6°C
CH3	M.2	68.9°C
CH4	DRAM	71.6°C
CH5	Heat-Pipe Heat Sink	56.1°C
CH6	Power Supply	59.5°C
CH7	Right Side System Heat Sink	59°C
CH8	Left Side System Heat Sink	58.5°C



# Performance Test ROC230-AC

## - Chamber in 60°C / 60%RH

The screenshot shows the BurnInTest V9.0 Pro interface. The main window displays a large red 'STOP' button and a 'RUNNING (0 Errors)' status. The CPU test results are as follows:

Test	Threads	Executed	Verified
General:	5	558236481.0	558236481.0
Floating Point:	3	1015181593.1	1015181593.1
Extensions:	5	874191030.0	874191030.0
Primes:	3	1814353.2	1814353.2
Max Heat:		N/A	

The system information window shows the following details:

- System: Supermicro Super Server
- CPU [#0]: Intel Xeon D-1736NT
- CPU [#0]: Intel Xeon D-1736NT: DTS
- Core Temperatures: 98 °C (Current), 85 °C (Minimum), 100 °C (Maximum), 97 °C (Average)
- Core 0: 99 °C (Current), 88 °C (Minimum), 100 °C (Maximum), 97 °C (Average)
- Core 1: 99 °C (Current), 88 °C (Minimum), 100 °C (Maximum), 97 °C (Average)
- Core 2: 99 °C (Current), 92 °C (Minimum), 100 °C (Maximum), 99 °C (Average)
- Core 3: 95 °C (Current), 87 °C (Minimum), 100 °C (Maximum), 95 °C (Average)
- Core 4: 97 °C (Current), 85 °C (Minimum), 100 °C (Maximum), 96 °C (Average)
- Core 5: 97 °C (Current), 88 °C (Minimum), 100 °C (Maximum), 96 °C (Average)
- Core 6: 98 °C (Current), 89 °C (Minimum), 100 °C (Maximum), 98 °C (Average)
- Core 7: 97 °C (Current), 89 °C (Minimum), 100 °C (Maximum), 98 °C (Average)
- Core Distance to TJMAX: 2 °C (Current), 0 °C (Minimum), 15 °C (Maximum), 3 °C (Average)
- Core 0 Distance to TJMAX: 1 °C (Current), 0 °C (Minimum), 12 °C (Maximum), 3 °C (Average)
- Core 1 Distance to TJMAX: 1 °C (Current), 0 °C (Minimum), 12 °C (Maximum), 3 °C (Average)
- Core 2 Distance to TJMAX: 1 °C (Current), 0 °C (Minimum), 8 °C (Maximum), 1 °C (Average)

The Task Manager window shows the following system performance:

- CPU: 100% 2.70 GHz
- Memory: 43.6/63.6 GB (69%)
- Disk 0 (C:): SSD 99%
- Ethernet: S: 0 R: 0 Kbps
- Processors: 134
- Threads: 1334
- Handles: 46582
- Logical proc: 1
- Virtualization: L1 cache



Measuring Point	Ambient Temp.	60°C / 60% RH
	CPU Max Temperature ( Unit: °C)	100°C
	CPU Core Frequency (Unit: GHz)	2.70 GHz
CH1	CPU Integrated Heat Spreader	80.2°C
CH2	CPU Heat-sink	76.9°C
CH3	M.2	78.4°C
CH4	DRAM	81.1°C
CH5	Heat-Pipe Heat Sink	66.1°C
CH6	Power Supply	69.1°C
CH7	Right Side System Heat Sink	68.3°C
CH8	Left Sidede System Heat Sink	68.3°C



## 4. THERMAL TEST RESULT(-20°C ~ +60°C)

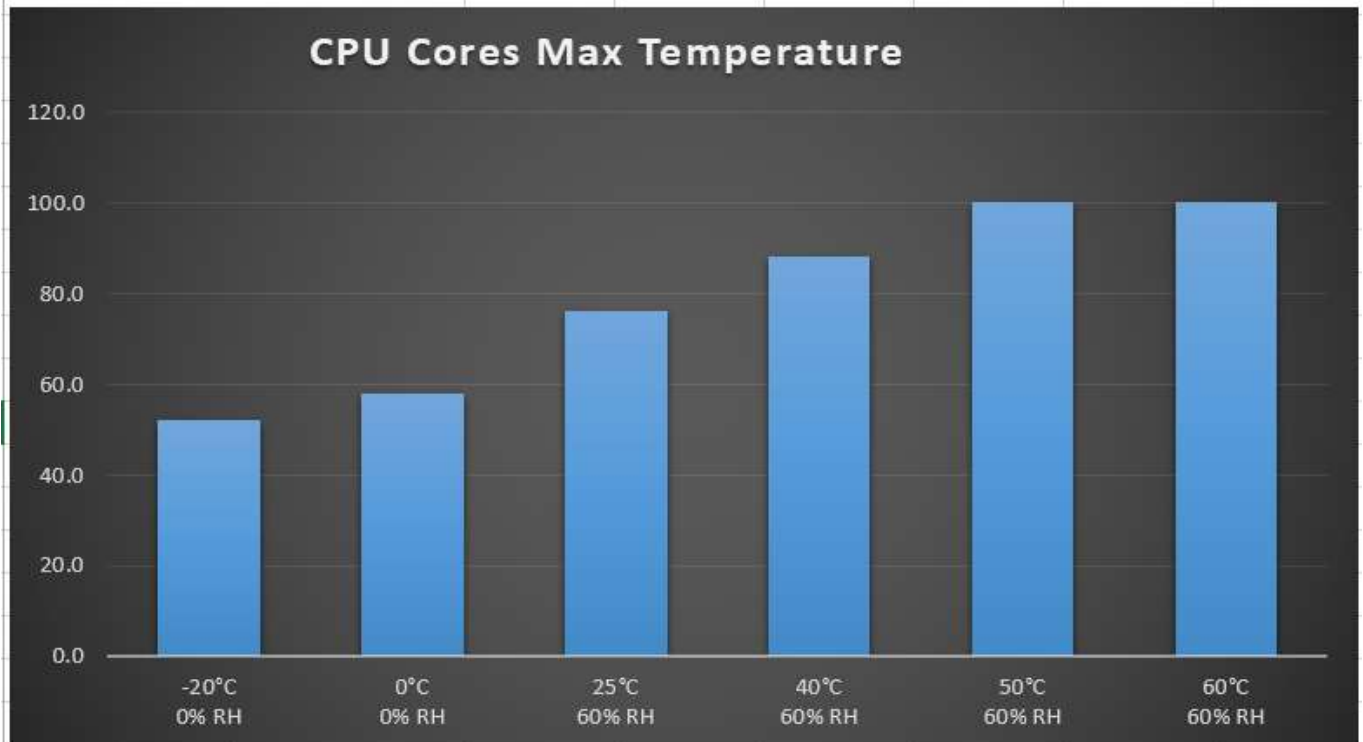
### CPU Temperature/Frequency

Temperature Frequency		Ambientemp.						
		-20°C 0% RH	0°C 0% RH	25°C 60% RH	40°C 60% RH	50°C 60% RH	60°C 60% RH	
CPU Max Temperature ( Unit: °C)		52	58	76	88	100	100	
CPU Cores Frequency (Unit: GHz) Performance-core Base Frequency: 2.70 GHz		3.18	3.19	3.19	3.18	3.17	2.7	
Thermocouple Measuring point and Temperature		Ambient Temp.						
		-20°C 0% RH	0°C 0% RH	25°C 60% RH	40°C 60% RH	50°C 60% RH	60°C 60% RH	
CH1	CPU Integrated Heat Spreader	23.5	29.2	46.7	61	71	80.2	
CH2	CPU Heat Sink	23.3	26	44.8	57.8	67.6	76.9	
CH3	M.2	24.6	34.6	48.8	58.3	68.9	78.4	
CH4	DRAM	17.8	25.4	40.4	59.6	71.6	81.1	
CH5	Heat-Pipe Heat Sink	14.2	20.8	38.8	46.2	56.1	66.1	
CH6	Power Supply	-0.7	13.2	34.1	49.7	59.5	69.1	
CH7	Right Side System Heat Sink	0.8	13	33.7	49.2	59	68.3	
CH8	Left Sidede System Heat Sink	-12.8	11.4	33.8	48.7	58.5	68.3	

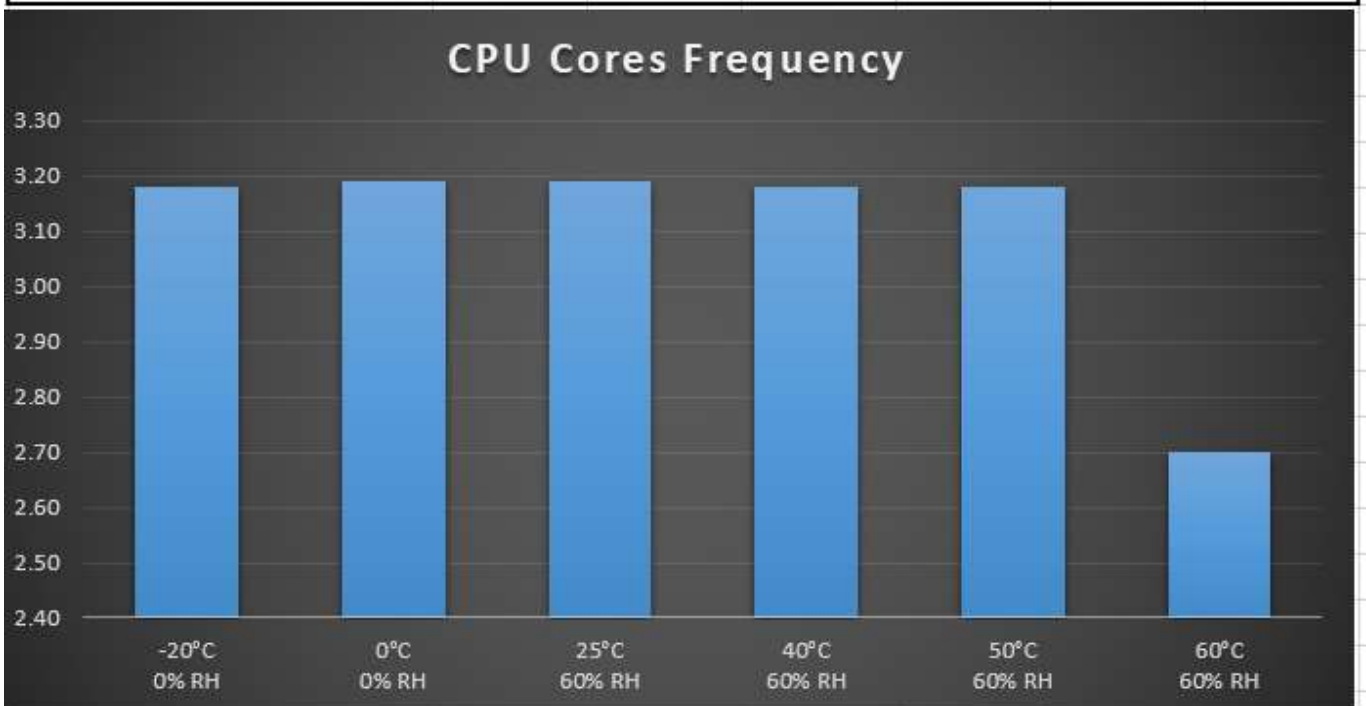
# Performance Test

## ROC230-AC

Core Temp / Ambient Temp CPU Frequency	-20°C 0% RH	0°C 0% RH	25°C 60% RH	40°C 60% RH	50°C 60% RH	60°C 60% RH
<b>CPU Cores Max Temperature</b>	52.0	58.0	76.0	88.0	100.0	100.0

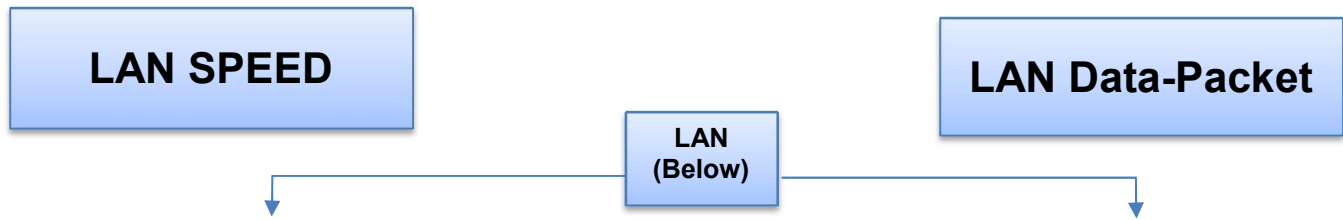


Core Temp / Ambient Temp CPU Frequency	-20°C 0% RH	0°C 0% RH	25°C 60% RH	40°C 60% RH	50°C 60% RH	60°C 60% RH
<b>CPU Cores Frequency</b>	3.18	3.19	3.19	3.18	3.18	2.70





# Performance Test ROC230-AC



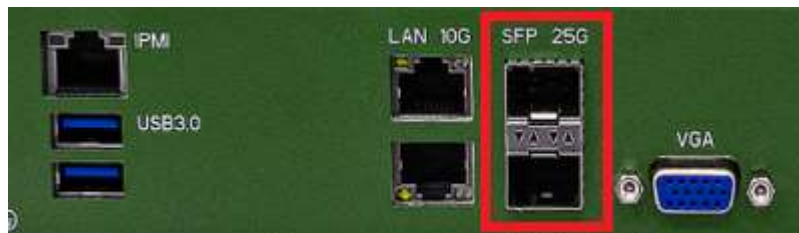
The screenshot displays three windows from a Windows environment:

- Command Prompt (Left):** Shows the output of an iperf test. The transfer rate is consistently around 9.38 Gb/s. A summary table is shown below:

ID	Interval	Transfer	Bitrate	sender	receiver
[ 5]	0.00-1800.01 sec	1.92 TBytes	9.40 Gb/s		
[ 5]	0.00-1800.02 sec	1.92 TBytes	9.40 Gb/s		
- Ethernet 2 Status (Center):** Shows network connection details. IPv4 and IPv6 connectivity are 'No network access'. Media State is 'Enabled'. Duration is '01:14:12'. Speed is '10.0 Gbps'. Activity shows 'Sent' and 'Received' bytes.
- Command Prompt (Right):** Shows the output of a ping test to 192.168.1.17. All 1000 packets were received with 0% loss. Ping statistics:  
Ping statistics for 192.168.1.17:  
Packets: Sent = 1000, Received = 1000, Lost = 0 (0% loss),  
Approximate round trip times in milli-seconds:  
Minimum = 0ms, Maximum = 2ms, Average = 0ms

**LAN Speed Test Result: Pass**  
**LAN Data-Packet Test Result: 0 Lost (0% loss)**

# Performance Test ROC230-AC



LAN 25GbE

LAN SPEED

LAN Data-Packet

LAN (Above)

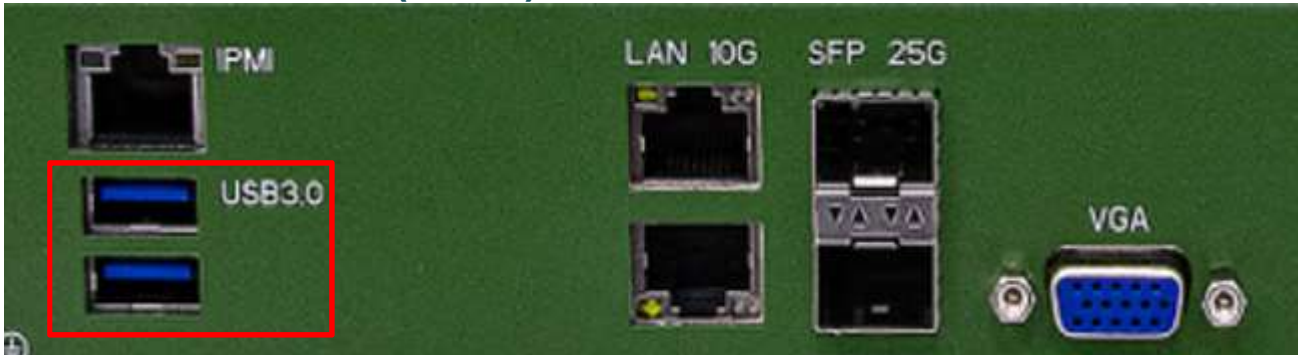
The screenshot displays a Windows Settings window for network configuration and a Command Prompt window showing test results. The network settings for Ethernet (en0) are shown as 'Cable plugged' with a speed of 'Connected - 25000 Mbps'. The Command Prompt shows a series of 'Reply from 192.168.1.35' messages, indicating successful data packet transmission. Ping statistics for 192.168.1.35 are shown as: Packets: Sent = 1725, Received = 1725, Lost = 0 (0% loss), Minimum = 0ms, Maximum = 3ms, Average = 0ms.

**LAN Speed Test Result: Pass**  
**LAN Data-Packet Test Result: 0 Lost (0% loss)**



# Performance Test ROC230-AC

## 5-2. USB PORT (REAR)



**USB 3.0**

PassMark(TM) USB3Test

Select USB Device: Device: PMU33ZQ2CX (SuperSpeed 5Gb/s) Connection Type: SuperSpeed 5Gb/s

Test mode:  Loopback  Benchmark

**Results** Status: BENCHMARK test - Complete

Duration: 000h 30m 00s Operations: 0 Errors: 0

Read block 6047:	3440.2 Mb/s (430.0 MB/s)
Read block 6048:	3445.4 Mb/s (430.7 MB/s)
Read block 6049:	3443.6 Mb/s (430.4 MB/s)
Read block 6050:	3444.2 Mb/s (430.5 MB/s)
Read block 6051:	3443.4 Mb/s (430.4 MB/s)
Read block 6052:	3446.9 Mb/s (430.9 MB/s)
Read block 6053:	3445.6 Mb/s (430.7 MB/s)
Read block 6054:	3443.4 Mb/s (430.4 MB/s)
Read block 6055:	3446.7 Mb/s (430.8 MB/s)
Read block 6056:	3444.7 Mb/s (430.6 MB/s)
Read block 6057:	3445.3 Mb/s (430.7 MB/s)
Read block 6058:	3440.1 Mb/s (430.0 MB/s)
Read block 6059:	3444.6 Mb/s (430.6 MB/s)
Read block 6060:	3445.2 Mb/s (430.7 MB/s)

OVERALL BENCHMARK RESULT:  
Test Start time: Fri May 22 11:09:07 2026  
Duration: 000h 30m 00s  
Total number of bytes read: 775680 MB  
Maximum Read Data Rate: 3450.6 Mb/s (431.3 MB/s)  
Minimum Read Data Rate: 3343.1 Mb/s (417.9 MB/s)  
Average Read Data Rate: 3444.2 Mb/s (430.5 MB/s)

Max. Rate 3450

Voltage 5.01V  
Speed 5Gb/s

Duration 30 Minutes

Start Stop  
Configure Flash LEDs  
Clear Serial Save Log  
Reset All Help  
About Exit

PassMark(TM) USB3Test

Select USB Device: Device: PMU33ZQ2CX (SuperSpeed 5Gb/s) Connection Type: SuperSpeed 5Gb/s

Test mode:  Loopback  Benchmark

**Results** Status: BENCHMARK test - Complete

Duration: 000h 30m 00s Operations: 0 Errors: 0

Read block 6069:	3451.5 Mb/s (431.4 MB/s)
Read block 6070:	3454.8 Mb/s (431.8 MB/s)
Read block 6071:	3452.8 Mb/s (431.6 MB/s)
Read block 6072:	3452.2 Mb/s (431.5 MB/s)
Read block 6073:	3450.2 Mb/s (431.3 MB/s)
Read block 6074:	3456.1 Mb/s (432.0 MB/s)
Read block 6075:	3453.7 Mb/s (431.7 MB/s)
Read block 6076:	3449.9 Mb/s (431.2 MB/s)
Read block 6077:	3456.4 Mb/s (432.1 MB/s)
Read block 6078:	3456.1 Mb/s (432.0 MB/s)
Read block 6079:	3452.3 Mb/s (431.5 MB/s)
Read block 6080:	3454.9 Mb/s (431.9 MB/s)
Read block 6081:	3454.5 Mb/s (431.8 MB/s)
Read block 6082:	3454.8 Mb/s (431.8 MB/s)

OVERALL BENCHMARK RESULT:  
Test Start time: Fri May 22 10:32:34 2026  
Duration: 000h 30m 00s  
Total number of bytes read: 778496 MB  
Maximum Read Data Rate: 3462.2 Mb/s (432.8 MB/s)  
Minimum Read Data Rate: 3353.8 Mb/s (419.2 MB/s)  
Average Read Data Rate: 3453.9 Mb/s (431.7 MB/s)

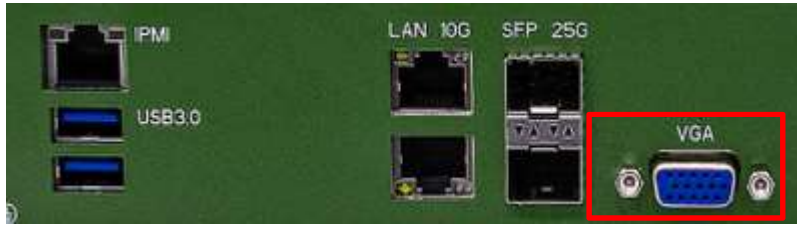
Max. Rate 3462

Voltage 5.01V  
Speed 5Gb/s

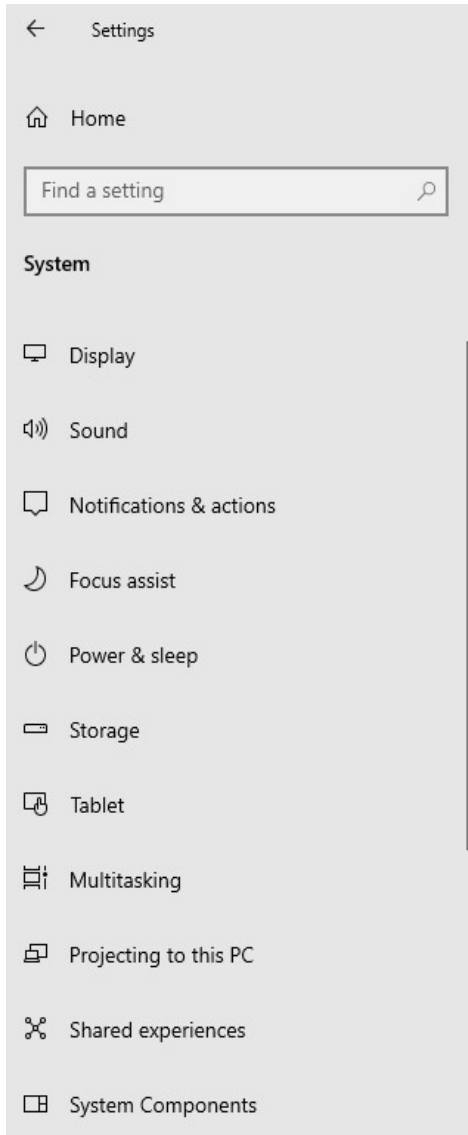
Duration 30 Minutes

Start Stop  
Configure Flash LEDs  
Clear Serial Save Log  
Reset All Help  
About Exit

### 5-3. VGA PORT



VGA



#### Display

[Night light settings](#)

#### Windows HD Color

Get a brighter and more vibrant picture for videos, games and apps that support HDR.

[Windows HD Color settings](#)

#### Scale and layout

Change the size of text, apps, and other items

100% (Recommended) ▾

[Advanced scaling settings](#)

Display resolution

1024 × 768 (Recommended) ▾

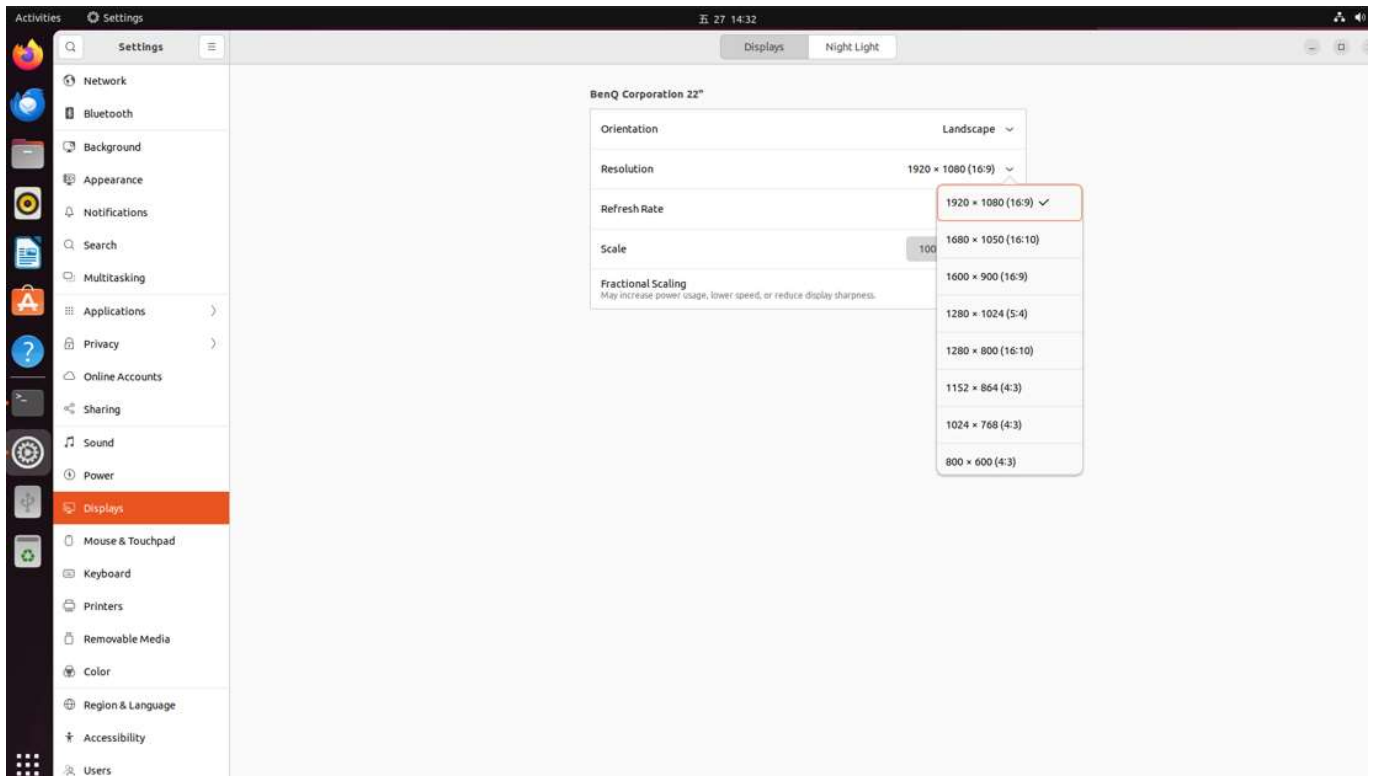
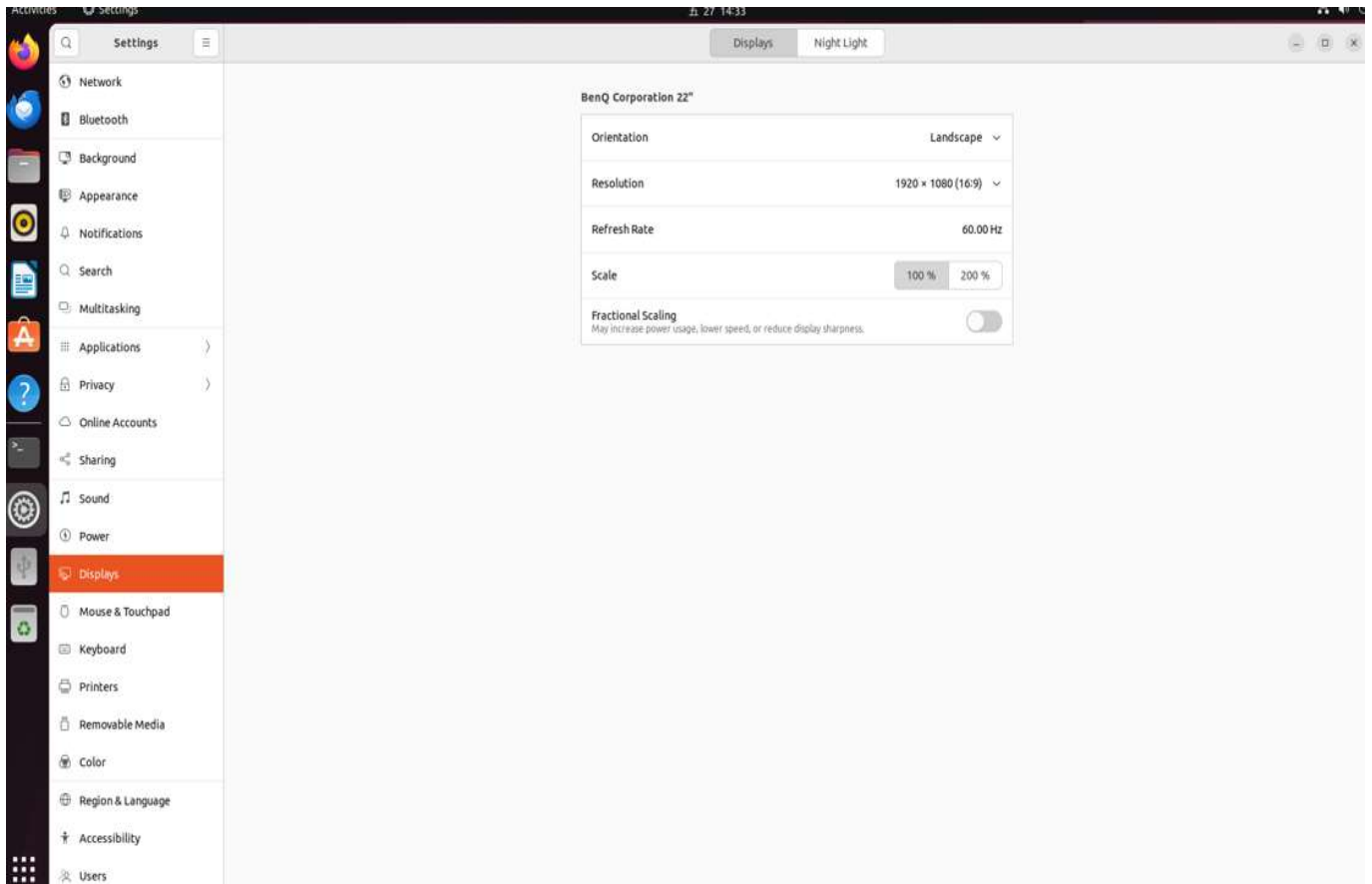
Display orientation

Landscape ▾

#### Multiple displays

Older displays might not always connect automatically. Select Detect to try to connect to them.

# Performance Test ROC230-AC



## 5-3. IPMI PORT



**IPMI**



```
--BMC network configuration--
Update IPMI LAN Configuration      [No]

*****
Configure IPv4 Support
*****

IPMI LAN Selection                  [Failover]
IPMI Network Link Status:          Dedicated LAN

Configuration Address Source        [DHCP]
Station IP Address                  192.168.0.69
Subnet Mask                         255.255.255.0
Station MAC Address                 3C-EC-EF-D1-A5-B2
Gateway IP Address                  192.168.0.1
VLAN                                [Disable]

*****
Configure IPv6 Support
*****
IPv6 Address Status                 -

IPv6 Support                        [Disabled]
IPv6 is not supported in BMC (OR) IPv6 Support is Disabled.
```

A screenshot of the Supermicro BMC web interface. The browser address bar shows the URL: https://192.168.0.69/cgi/url\_redirect.cgi?url\_name=topmenu. The interface includes a navigation menu on the left with options like Dashboard, System, Configuration, Remote Control, and Maintenance. The main content area displays system and host information. The 'System' section lists details such as Firmware Version (00.14.04), BIOS Build Time (04/19/2022), and BMC MAC Address (3C:EC:EF:D1:A5:B2). The 'Host' section shows the Server IP Address as 192.168.0.69, which is highlighted with a red box.

## 5-6 USB PORT (FRONT)



**USB 2.0**

PassMark(TM) USB2Test

Select USB test

Test mode  Loopback  Benchmark

Loopback load  %

Device  ▼

Duration  Minutes (0=forever)


USB test data selection

Constant (default)

Incrementing sequence

Random numbers

Verify data transferred



Results for PMUSB-0 (USB 2.0) Status: Loopback test - Complete		
Duration: 000h 10m 00s	Operations: 38432	Verification errors: 0
PassMark USB2Test V1.1 1011		
USB Port (connected device) summary:		
PMUSB-0: 480Mb/s (Serial #: PMRAAXI5, Firmware version: 3)		
PMUSB-1: 480Mb/s (Serial #: PMRAAVN5, Firmware version: 3)		
START OF USB LOOPBACK TEST		
Device: PMUSB-0 (HighSpeed)		
RESULTS:		
Test Start time: Fri May 22 12:00:22 2026		
Duration: 000h 10m 00s		
38432 operations. 0 verification errors. 0 device transceiver errors.		
END OF USB LOOPBACK TEST		

Max. Rate  
NA  
12  
9  
6  
3  
0  
R/W  
(Mb/s)

Start Stop Save Log Reset All About Help Exit

# Performance Test ROC230-AC

PassMark(TM) USB2Test X

Select USB test:

Test mode  Loopback  Benchmark

Loopback load  %

Device  ▼

Duration  Minutes [0=forever]


USB test data selection

Constant (default)

Incrementing sequence

Random numbers

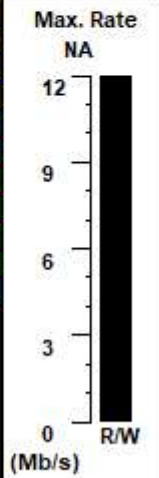
Verify data transferred



**Results for PMUSB-1 (USB 2.0) Status: Loopback test - Complete**

Duration: 000h 10m 00s	Operations: 38402	Verification errors: 0
PassMark USB2Test V1.1 1011		
USB Port (connected device) summary:		
PMUSB-0: 480Mb/s (Serial #: PMRAAXI5, Firmware version: 3)		
PMUSB-1: 480Mb/s (Serial #: PMRAAVN5, Firmware version: 3)		
START OF USB LOOPBACK TEST		
Device: PMUSB-1 (HighSpeed)		
RESULTS:		
Test Start time: Fri May 22 12:00:23 2026		
Duration: 000h 10m 00s		
38402 operations. 0 verification errors. 0 device transceiver errors.		
END OF USB LOOPBACK TEST		

Max. Rate  
NA



(Mb/s)

Start
Stop
Save Log
Reset All
About
Help
Exit

-----END-----