



AV800-D27

10G Ethernet Speed and Packet Verification Report






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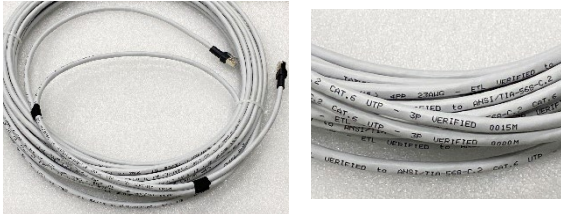
Ethernet Test

AV800-D27

Test Equipment

<p>PC</p>	<p>CPU: Intel® Xeon® D-1587 @ 1.70GHz RAM: 32GB OS: Windows 10 Pro Test Software: iPerf3</p>	
<p>Switch</p>	<p>QNAP QSW-1208-8C Supported Standards: IEEE 802.3ab 1000BASE-T Gigabit Ethernet IEEE 802.3bz 2.5G/5G BASE-T Multi-Gig Ethernet IEEE 802.3an 10GBASE-T 10G Ethernet IEEE 802.3ae 10GBASE-SR IEEE 802.3ae 10GBASE-LR IEEE 802.3x Full-duplex flow control</p>	
<p>Cable</p>	<p>TMA-CAT8 SAMZHE Cat.8 SSTP Ethernet Cable Speed: 40Gbps 2000MHz Length: 2meters</p>	

Equipment Under Test

<p>EUT</p>	<p>AV800-D27 OS: Ubuntu 23.10 Test Software: iPerf3</p>	
<p>Cable #1</p>	<p>EM TYPE Cat.6A Ethernet Cable Speed: 10Gbps 500MHz Length: 2meters</p>	
<p>Cable #2</p>	<p>E210587 TATUNG Cat.6 Ethernet Cable Speed: 1Gbps 250MHz Length: 15meters</p>	

Ethernet Test

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◆ Network speed and data packet testing Result

Test items	Test log	Result
AV800-D27 + Cat.6A Ethernet Cable to PC	1. Speed 9.12Gbits/sec. 2. No Data Packet loss.	PASS
AV800-D27 + Cat.6A Ethernet Cable to Switch to PC	1. Speed 9.12Gbits/sec. 2. No data packet loss.	PASS
AV800-D27 + Cat.6 Ethernet Cable to Switch to PC	1. Speed 9.21Gbits/sec. 2. No data packet loss.	PASS

Ethernet Test

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◆ AV800-D27 + **Cat.6A** Ethernet Cable(2meters) to PC



Terminal Output:

```
[SUM] 59997.00-59998.00 sec 1.07 GBytes 9.22 Gbits/sec 615
[ 5] 59998.00-59999.00 sec 368 MBytes 3.08 Gbits/sec 438 760 KBytes
[ 7] 59998.00-59999.00 sec 366 MBytes 3.07 Gbits/sec 465 760 KBytes
[ 9] 59998.00-59999.00 sec 368 MBytes 3.08 Gbits/sec 477 766 KBytes
[SUM] 59998.00-59999.00 sec 1.08 GBytes 9.23 Gbits/sec 1380
[ 5] 59999.00-60000.00 sec 361 MBytes 3.03 Gbits/sec 462 791 KBytes
[ 7] 59999.00-60000.00 sec 318 MBytes 2.66 Gbits/sec 341 650 KBytes
[ 9] 59999.00-60000.00 sec 410 MBytes 3.44 Gbits/sec 477 828 KBytes
[SUM] 59999.00-60000.00 sec 1.06 GBytes 9.13 Gbits/sec 1280
```

[ID]	Interval	Transfer	Bitrate	Retr	sender
[5]	0.00-60000.00 sec	20.9 TBytes	3.06 Gbits/sec	26101989	sender
[7]	0.00-60000.00 sec	20.9 TBytes	3.06 Gbits/sec	25760826	sender
[9]	0.00-60000.00 sec	20.9 TBytes	3.06 Gbits/sec	25726169	sender
[SUM]	0.00-60000.00 sec	62.2 TBytes	9.12 Gbits/sec	77588984	sender
[SUM]	0.00-59999.67 sec	62.2 TBytes	9.12 Gbits/sec		receiver

Network Settings:

```
root@test-0123456789:/home/test# lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description: Ubuntu 23.10
Release: 23.10
Codename: mantic
```

```
root@test-0123456789:/home/test# iperf Done.
root@test-0123456789:/home/test#
```

```
root@test-0123456789:/home/test# nstat -az UdpSndbufErrors UdpRcvbufErrors
Every 1.0s: nstat -az UdpSndbufErrors UdpRcvbufErrors test-0123456789: Wed May 29 09:24:31 2024
#kernel
UdpRcvbufErrors      0          0.0
UdpSndbufErrors      0          0.0
```

```
root@test-0123456789:/home/test/Downloads# ethtool -S eno5 | grep dna
rx_no_dna_resources: 0
root@test-0123456789:/home/test/Downloads# ethtool -S eno5 | grep dna
rx_no_dna_resources: 0
root@test-0123456789:/home/test/Downloads# ethtool -S eno5 | grep dna
rx_no_dna_resources: 0
root@test-0123456789:/home/test/Downloads# ethtool -S eno5 | grep dna
rx_no_dna_resources: 0
```

Ethernet Test

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◆ AV800-D27 + **Cat.6A** Ethernet Cable(2meters) to Switch to PC



Ubuntu version

```
root@test-0123456789:/home/test# lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description:    Ubuntu 23.10
Release:        23.10
Codename:       noble
```

Speed

```
iperf Done.
root@test-0123456789:/home/test#
[SUM] 59997.00-59998.00 sec 1.07 GBytes 9.23 Gbits/sec 1000
[ 5] 59998.00-59999.00 sec 311 MBytes 2.61 Gbits/sec 469 525 KBytes
[ 7] 59998.00-59999.00 sec 475 MBytes 3.99 Gbits/sec 581 673 KBytes
[ 9] 59998.00-59999.00 sec 312 MBytes 2.62 Gbits/sec 529 515 KBytes
[SUM] 59998.00-59999.00 sec 1.07 GBytes 9.22 Gbits/sec 1579
[ 5] 59999.00-60000.00 sec 282 MBytes 2.37 Gbits/sec 391 436 KBytes
[ 7] 59999.00-60000.00 sec 511 MBytes 4.29 Gbits/sec 279 575 KBytes
[ 9] 59999.00-60000.00 sec 282 MBytes 2.37 Gbits/sec 206 455 KBytes
[SUM] 59999.00-60000.00 sec 1.85 GBytes 9.03 Gbits/sec 876
[ ID] Interval      Transfer      Bitrate      Retr      sender
[ 5] 0.00-60000.00 sec 20.9 TBytes 3.06 Gbits/sec 27403410 sender
[ 7] 0.00-59999.69 sec 20.9 TBytes 3.06 Gbits/sec receiver
[ 5] 0.00-60000.00 sec 20.7 TBytes 3.04 Gbits/sec 27313831 sender
[ 7] 0.00-59999.69 sec 20.7 TBytes 3.04 Gbits/sec receiver
[ 5] 0.00-60000.00 sec 20.6 TBytes 3.02 Gbits/sec 27234810 sender
[ 7] 0.00-59999.69 sec 20.6 TBytes 3.02 Gbits/sec receiver
[SUM] 0.00-60000.00 sec 62.2 TBytes 9.12 Gbits/sec 81952051 sender
[SUM] 0.00-59999.69 sec 62.2 TBytes 9.12 Gbits/sec receiver
```

Data packet no loss

```
Every 1.0s: nstat -az UdpSndbufErrors UdpRcvbufErrors test-0123456789: Thu May 30 09:03:12 2024
#kernel
UdpRcvbufErrors      0          0.0
UdpSndbufErrors      0          0.0
```

Data packet no loss

```
2024-05-30 08:17:32 rx_no_dma_resources: 0
2024-05-30 08:22:32 rx_no_dma_resources: 0
2024-05-30 08:27:32 rx_no_dma_resources: 0
2024-05-30 08:32:32 rx_no_dma_resources: 0
2024-05-30 08:37:32 rx_no_dma_resources: 0
2024-05-30 08:42:32 rx_no_dma_resources: 0
2024-05-30 08:47:32 rx_no_dma_resources: 0
2024-05-30 08:52:32 rx_no_dma_resources: 0
2024-05-30 08:57:32 rx_no_dma_resources: 0
2024-05-30 09:02:32 rx_no_dma_resources: 0
```

10Gbps

Ethernet (eno5)
Connected - 10000 Mb/s

Ethernet Test

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◆ AV800-D27 + Cat.6 Ethernet Cable(15meters) to Switch to PC



Ubuntu version

```
root@test-0123456789:/home/test# lsb_release -a
No LSB modules are available.
Distributor ID: Ubuntu
Description:    Ubuntu 23.10
Release:        23.10
Codename:       mantic
root@test-0123456789:/home/test#
```

Speed

```
iperf Done.
root@test-0123456789:/home/test#
```

[ID]	Interval	Transfer	Bitrate	Retr	sender	receiver
[5]	0.00-60000.00 sec	21.3 TBytes	3.12 Gbits/sec	24549195		
[5]	0.00-59998.91 sec	21.3 TBytes	3.12 Gbits/sec		sender	receiver
[7]	0.00-60000.00 sec	20.8 TBytes	3.05 Gbits/sec	23927954		
[7]	0.00-59998.91 sec	20.8 TBytes	3.05 Gbits/sec		sender	receiver
[9]	0.00-60000.00 sec	20.8 TBytes	3.04 Gbits/sec	23407633		
[9]	0.00-59998.91 sec	20.8 TBytes	3.04 Gbits/sec		sender	receiver
[SUM]	0.00-60000.00 sec	62.8 TBytes	9.21 Gbits/sec	71884782	sender	
[SUM]	0.00-59998.91 sec	62.8 TBytes	9.21 Gbits/sec			receiver

Data packet no loss

```
#/usr/bin/
UdpRecvbufErrors 0 0.0
UdpSndbufErrors 0 0.0
```

```
2024-05-31 08:12:02 rx_no_dna_resources: 0
2024-05-31 08:22:02 rx_no_dna_resources: 0
2024-05-31 08:32:02 rx_no_dna_resources: 0
2024-05-31 08:42:02 rx_no_dna_resources: 0
2024-05-31 08:52:02 rx_no_dna_resources: 0
2024-05-31 09:02:02 rx_no_dna_resources: 0
2024-05-31 09:12:02 rx_no_dna_resources: 0
2024-05-31 09:22:02 rx_no_dna_resources: 0
2024-05-31 09:32:02 rx_no_dna_resources: 0
2024-05-31 09:42:02 rx_no_dna_resources: 0
```

10Gbps

Ethernet (eno5) Connected - 10000 Mb/s