

SWAN Ethernet Throughput Test Result v0.1

2021/08/03

Introduction.

This document specifies the details to validate DUT Ethernet performance.
This test will use Iperf3.1.3 Test tool and Control NB.

1.1. Throughput Test

Test Environment

- Configure the test setup as shown in block diagram below

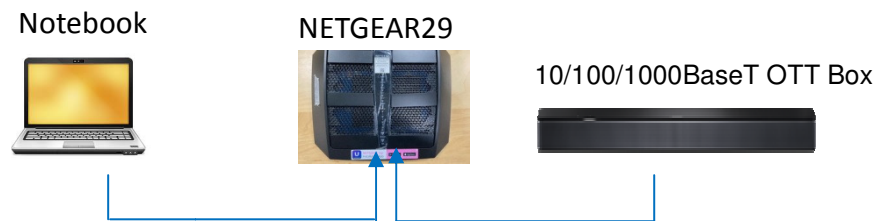


Figure 1: Throughput Test

The performance specified in following paragraphs shall be guaranteed under the following conditions:

HW Version: DVT2 , SW Version: BFX_UA300 10 QT 19.522.17-20201223				
Items #	Description	Result (B6:7E)	Result (B6:37)	Result (B6:17)
1	1000BaseT	912 Mb	906 Mb	903 Mb
2	100BaseT	93.1 Mb	94.2 Mb	93.9 Mb

Purpose: Verify the DUT can detect accidental changes to raw data.

■ 1000BaseT :

1. NB:

To run this test , we will open our command processor and input the following information.

“ iperf3.exe -s”

```
D:\EMC_TEST>iperf3.exe -s
-----
Server listening on 5201
-----
Accepted connection from 192.168.1.10, port 48598
[ 5] local 192.168.1.2 port 5201 connected to 192.168.1.10 port 48600
[ ID] Interval      Transfer    Bandwidth
[ 5] 0.00-1.00  sec   71.4 MBytes  598 Mbits/sec (omitted)
[ 5] 1.00-2.00  sec   111 MBytes  934 Mbits/sec (omitted)
[ 5] 2.00-3.00  sec   111 MBytes  929 Mbits/sec (omitted)
[ 5] 0.00-1.00  sec   109 MBytes  915 Mbits/sec
[ 5] 1.00-2.00  sec   105 MBytes  885 Mbits/sec
[ 5] 2.00-3.00  sec   110 MBytes  919 Mbits/sec
[ 5] 3.00-4.00  sec   111 MBytes  932 Mbits/sec
[ 5] 4.00-5.00  sec   107 MBytes  897 Mbits/sec
[ 5] 5.00-6.00  sec   108 MBytes  906 Mbits/sec
```

2. DUT:

This command will run a iperf test for 10 minutes.

“ iperf3 -c 192.168.1.2 -o 3 -t 600”

```
console:/ # iperf3 -c 192.168.1.2 -o 3 -t 600
Connecting to host 192.168.1.2, port 5201
[ 4] local 192.168.1.10 port 48600 connected to 192.168.1.2 port 5201
[ ID] Interval      Transfer    Bandwidth
[ 4] 0.00-1.00  sec   77.7 MBytes  651 Mbits/sec (omitted)
[ 4] 1.00-2.00  sec   111 MBytes  935 Mbits/sec (omitted)
[ 4] 2.00-3.00  sec   111 MBytes  930 Mbits/sec (omitted)
[ 4] 0.00-1.00  sec   109 MBytes  912 Mbits/sec
[ 4] 1.00-2.00  sec   105 MBytes  885 Mbits/sec
[ 4] 2.00-3.00  sec   110 MBytes  921 Mbits/sec
[ 4] 3.00-4.00  sec   111 MBytes  932 Mbits/sec
[ 4] 4.00-5.00  sec   107 MBytes  894 Mbits/sec
```

■ 100MBaseT :

1. NB:

To run this test, we will open our command processor and input the following information.

“iperf3.exe -s”

```
D:\EMC_TEST>iperf3.exe -s
-----
Server listening on 5201
-----
Accepted connection from 192.168.1.10, port 48580
[ 5] local 192.168.1.2 port 5201 connected to 192.168.1.10 port 48582
[ ID] Interval      Transfer    Bandwidth
[ 5] 0.00-1.00    sec  11.1 MBytes  92.8 Mbits/sec (omitted)
[ 5] 1.00-2.00    sec  11.2 MBytes  93.9 Mbits/sec (omitted)
[ 5] 2.00-3.00    sec  10.8 MBytes  90.5 Mbits/sec (omitted)
[ 5] 0.00-1.00    sec  11.2 MBytes  93.8 Mbits/sec
[ 5] 1.00-2.00    sec  11.2 MBytes  94.1 Mbits/sec
[ 5] 2.00-3.00    sec  11.2 MBytes  94.3 Mbits/sec
[ 5] 3.00-4.00    sec  11.2 MBytes  93.9 Mbits/sec
[ 5] 4.00-5.00    sec  11.1 MBytes  93.4 Mbits/sec
```

2. DUT

This command will run a iperf test for 10 minutes.

“iperf3 -c 192.168.1.2 -o 3 -t 600”

```
console:/ # iperf3 -c 192.168.1.2 -o 3 -t 600
Connecting to host 192.168.1.2, port 5201
[ 4] local 192.168.1.3 port 59856 connected to 192.168.1.2 port 5201
[ ID] Interval      Transfer    Bandwidth
[ 4] 0.00-1.00    sec  11.7 MBytes  98.5 Mbits/sec (omitted)
[ 4] 1.00-2.00    sec  11.2 MBytes  93.8 Mbits/sec (omitted)
[ 4] 2.00-3.00    sec  11.1 MBytes  93.3 Mbits/sec (omitted)
[ 4] 0.00-1.00    sec  11.2 MBytes  93.8 Mbits/sec
[ 4] 1.00-2.00    sec  11.3 MBytes  94.8 Mbits/sec
[ 4] 2.00-3.00    sec  11.2 MBytes  93.8 Mbits/sec
[ 4] 3.00-4.00    sec  11.2 MBytes  94.0 Mbits/sec
[ 4] 4.00-5.00    sec  11.2 MBytes  93.9 Mbits/sec
[ 4] 5.00-6.00    sec  10.8 MBytes  91.0 Mbits/sec
```