

Generated by Viavi 5800-100G

# Enhanced RFC 2544 Test

Overall Test Result: Completed

**Throughput**



**Latency**



**Packet Jitter**



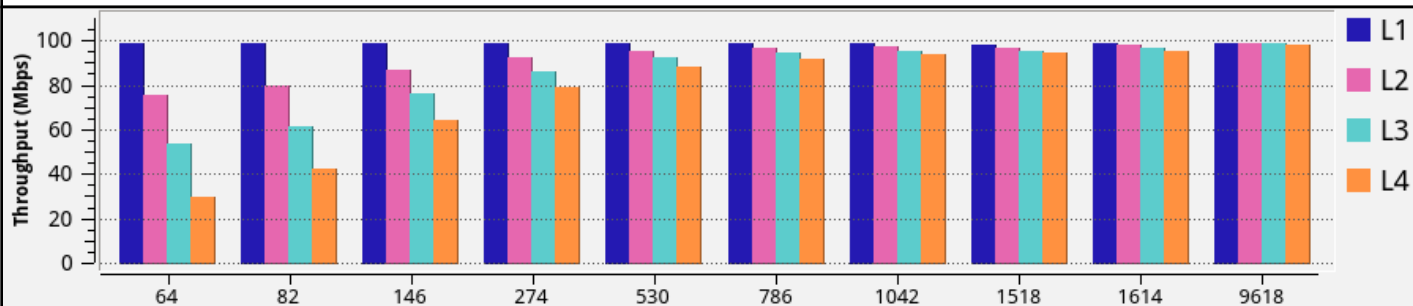
**Frame Loss**



|                |                                                |
|----------------|------------------------------------------------|
| Mode           | Symmetric Loopback                             |
| Tests to Run   | Throughput, Latency, Packet Jitter, Frame Loss |
| Customer Name  | --                                             |
| Technician ID  | --                                             |
| Test Location  | --                                             |
| Work Order     | --                                             |
| Comments/Notes | --                                             |
| Instrument     | MTS5800-100G                                   |
| Serial Number  | XMSE0084540022                                 |
| SW Version     | 32.1.0                                         |
| Start Date     | 05/15/2025                                     |
| End Date       | 05/15/2025                                     |
| Start Time     | 15:44:58                                       |
| End Time       | 15:55:12                                       |

| Enhanced RFC 2544: QSFP28 Interface Details |               |
|---------------------------------------------|---------------|
| Vendor                                      | FINISAR CORP. |
| Vendor PN                                   | FTLC1154SDPL  |
| Vendor SN                                   | U27ADA0       |
| Vendor Rev                                  | A0            |
| Date Code                                   | 190824        |
| Lot Code                                    |               |
| Module ID                                   | QSFP28        |
| Power Level Type                            | Average Power |
| Rx Max Lambda Power (dBm)                   | 5.5000        |
| Tx Max Lambda Power (dBm)                   | 7.5000        |
| Nominal Bit Rate (Mbits/sec)                | 28,000        |
| Nominal Wavelength (nm)                     | 1302          |
| Max Link Length                             | 10km (SMF)    |
| Cable Length                                | ---           |
| Diagnostic Byte                             | 12            |
| Transceiver                                 | 100GBASE-LR4  |

| Enhanced RFC 2544: Optical Power |     |
|----------------------------------|-----|
| Rx Level Lambda #1 (dBm)         | 2.4 |
| Rx Level Lambda #2 (dBm)         | 1.5 |
| Rx Level Lambda #3 (dBm)         | 0.6 |
| Rx Level Lambda #4 (dBm)         | 0.7 |
| Rx Level Sum (dBm)               | 7.4 |
| Tx Level Lambda #1 (dBm)         | 2.8 |
| Tx Level Lambda #2 (dBm)         | 3.0 |
| Tx Level Lambda #3 (dBm)         | 2.3 |
| Tx Level Lambda #4 (dBm)         | 2.2 |
| Tx Level Sum (dBm)               | 8.6 |

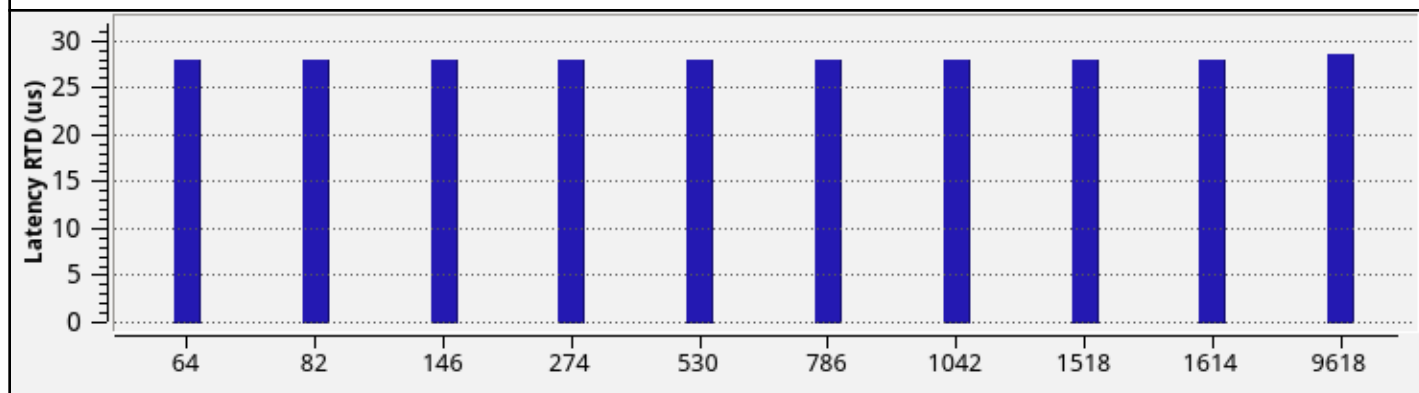
**Enhanced RFC 2544: Throughput Test Graph****Enhanced RFC 2544: Throughput Test Results**

| <i>Frame Length (Bytes)</i> | <i>Measured L1 (% Line Rate)</i> | <i>Measured L2 (% Line Rate)</i> | <i>Measured L3 (% Line Rate)</i> | <i>Measured L4 (% Line Rate)</i> | <i>Measured Rate (frms/sec)</i> | <i>Pause Detect</i> | <i>Cfg Rate (L1 Mbps)</i> |
|-----------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|---------------------|---------------------------|
| 64                          | 99.996                           | 76.187                           | 54.760                           | 30.951                           | 148,803,567                     | No                  | 100,000                   |
| 82                          | 99.996                           | 80.389                           | 62.743                           | 43.136                           | 122,544,113                     | No                  | 100,000                   |
| 146                         | 99.996                           | 87.948                           | 77.105                           | 65.058                           | 75,298,190                      | No                  | 100,000                   |
| 274                         | 99.996                           | 93.194                           | 87.071                           | 80.269                           | 42,515,304                      | No                  | 100,000                   |
| 530                         | 99.996                           | 96.360                           | 93.087                           | 89.451                           | 22,726,363                      | No                  | 100,000                   |
| 786                         | 99.996                           | 97.515                           | 95.282                           | 92.800                           | 15,508,064                      | No                  | 100,000                   |
| 1042                        | 99.996                           | 98.113                           | 96.418                           | 94.535                           | 11,769,774                      | No                  | 100,000                   |
| 1518                        | 99.000                           | 97.713                           | 96.554                           | 95.267                           | 8,046,162                       | No                  | 99,000                    |
| 1614                        | 99.996                           | 98.772                           | 97.671                           | 96.447                           | 7,649,633                       | No                  | 100,000                   |
| 9618                        | 99.996                           | 99.788                           | 99.602                           | 99.394                           | 1,296,898                       | No                  | 100,000                   |

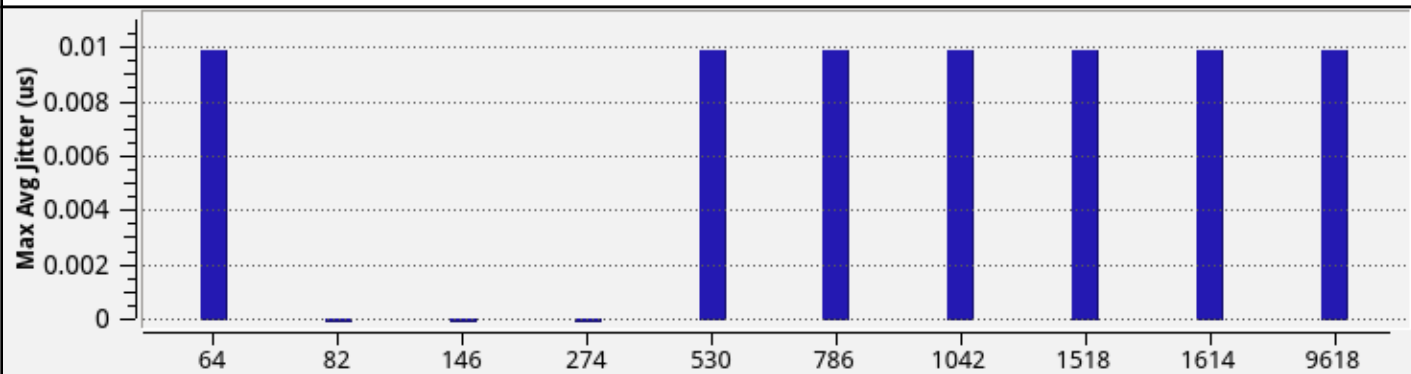
**Enhanced RFC 2544: Throughput Anomalies**

| <i>Frame Length (Bytes)</i> | <i>OoS Frame(s) Detected</i> | <i>Acterna Payload Error Detected</i> | <i>FCS Error Detected</i> | <i>IP Checksum Error Detected</i> |
|-----------------------------|------------------------------|---------------------------------------|---------------------------|-----------------------------------|
| 64                          | No                           | No                                    | No                        | No                                |
| 82                          | No                           | No                                    | No                        | No                                |
| 146                         | No                           | No                                    | No                        | No                                |
| 274                         | No                           | No                                    | No                        | No                                |
| 530                         | No                           | No                                    | No                        | No                                |
| 786                         | No                           | No                                    | No                        | No                                |
| 1042                        | No                           | No                                    | No                        | No                                |

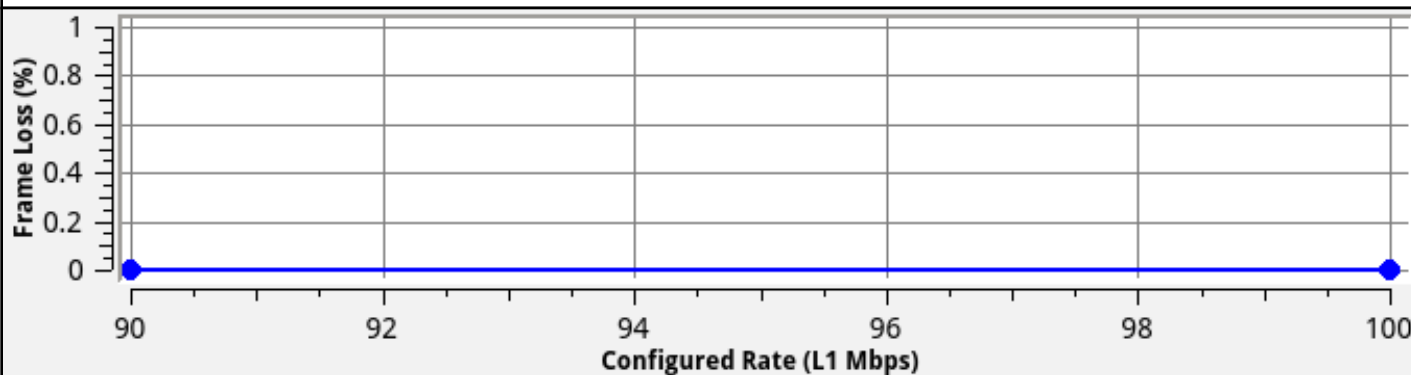
|      |    |    |     |    |
|------|----|----|-----|----|
| 1518 | No | No | Yes | No |
| 1614 | No | No | No  | No |
| 9618 | No | No | No  | No |

**Enhanced RFC 2544: Latency Test Graph****Enhanced RFC 2544: Latency Test Results**

| <i>Frame Length<br/>(Bytes)</i> | <i>Latency RTD (us)</i> | <i>Measured L1 Rate<br/>(Mbps)</i> | <i>Measured L1 (%<br/>Line Rate)</i> | <i>Measured Rate<br/>(frms/sec)</i> | <i>Pause Detect</i> |
|---------------------------------|-------------------------|------------------------------------|--------------------------------------|-------------------------------------|---------------------|
| 64                              | 28.11                   | 99996.000                          | 99.996                               | 148,803,567                         | No                  |
| 82                              | 28.11                   | 99996.000                          | 99.996                               | 122,544,113                         | No                  |
| 146                             | 28.12                   | 99996.000                          | 99.996                               | 75,298,190                          | No                  |
| 274                             | 28.13                   | 99996.000                          | 99.996                               | 42,515,304                          | No                  |
| 530                             | 28.15                   | 99996.000                          | 99.996                               | 22,726,363                          | No                  |
| 786                             | 28.17                   | 99996.000                          | 99.996                               | 15,508,064                          | No                  |
| 1042                            | 28.19                   | 99996.000                          | 99.996                               | 11,769,774                          | No                  |
| 1518                            | 28.22                   | 99000.000                          | 99.000                               | 8,046,162                           | No                  |
| 1614                            | 28.23                   | 99996.000                          | 99.996                               | 7,649,633                           | No                  |
| 9618                            | 28.88                   | 99996.000                          | 99.996                               | 1,296,898                           | No                  |

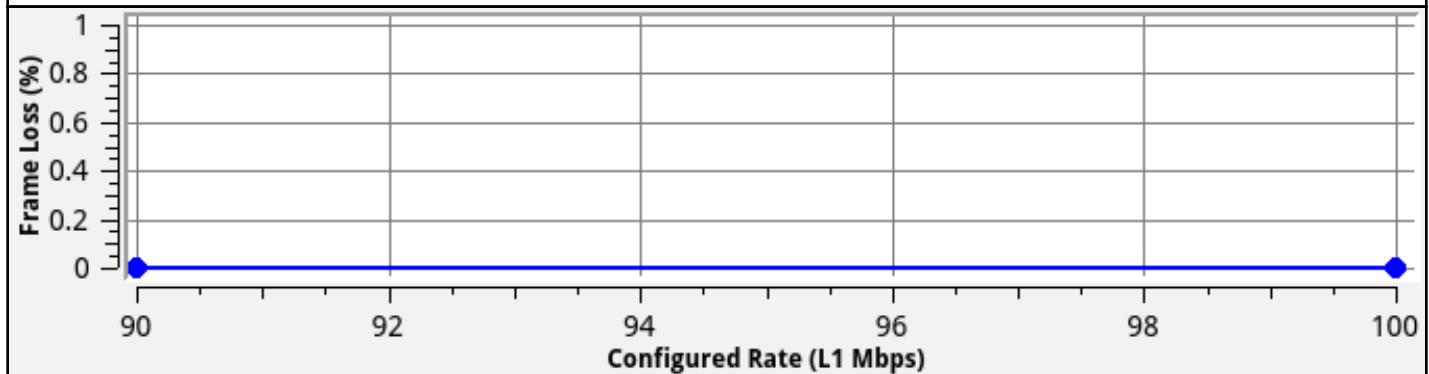
**Enhanced RFC 2544: Jitter Test Graph****Enhanced RFC 2544: Jitter Test Results**

| <i>Frame Length<br/>(Bytes)</i> | <i>Max Avg Jitter (us)</i> | <i>Measured L1 Rate<br/>(Mbps)</i> | <i>Measured L1 (%<br/>Line Rate)</i> | <i>Measured Rate<br/>(frms/sec)</i> | <i>Pause Detect</i> |
|---------------------------------|----------------------------|------------------------------------|--------------------------------------|-------------------------------------|---------------------|
| 64                              | 0.01                       | 99996.000                          | 99.996                               | 148,803,567                         | No                  |
| 82                              | 0.00                       | 99996.000                          | 99.996                               | 122,544,113                         | No                  |
| 146                             | 0.00                       | 99996.000                          | 99.996                               | 75,298,190                          | No                  |
| 274                             | 0.00                       | 99996.000                          | 99.996                               | 42,515,304                          | No                  |
| 530                             | 0.01                       | 99996.000                          | 99.996                               | 22,726,363                          | No                  |
| 786                             | 0.01                       | 99996.000                          | 99.996                               | 15,508,064                          | No                  |
| 1042                            | 0.01                       | 99996.000                          | 99.996                               | 11,769,774                          | No                  |
| 1518                            | 0.01                       | 99000.000                          | 99.000                               | 8,046,162                           | No                  |
| 1614                            | 0.01                       | 99996.000                          | 99.996                               | 7,649,633                           | No                  |
| 9618                            | 0.01                       | 99996.000                          | 99.996                               | 1,296,898                           | No                  |

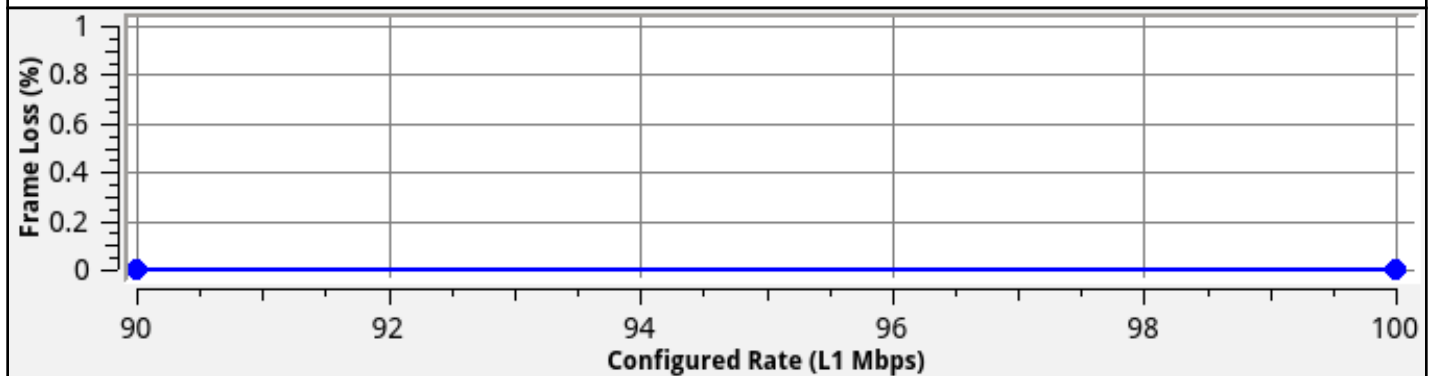
**Enhanced RFC 2544: 64 Byte Frame Loss Test Graph**

**Enhanced RFC 2544: 64 Byte Frame Loss Test Results**

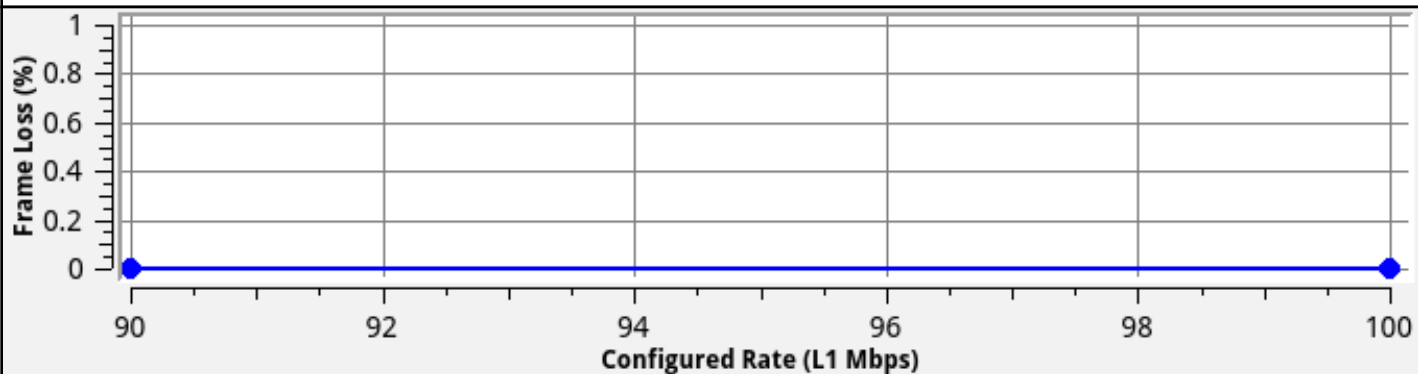
| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: 82 Byte Frame Loss Test Graph****Enhanced RFC 2544: 82 Byte Frame Loss Test Results**

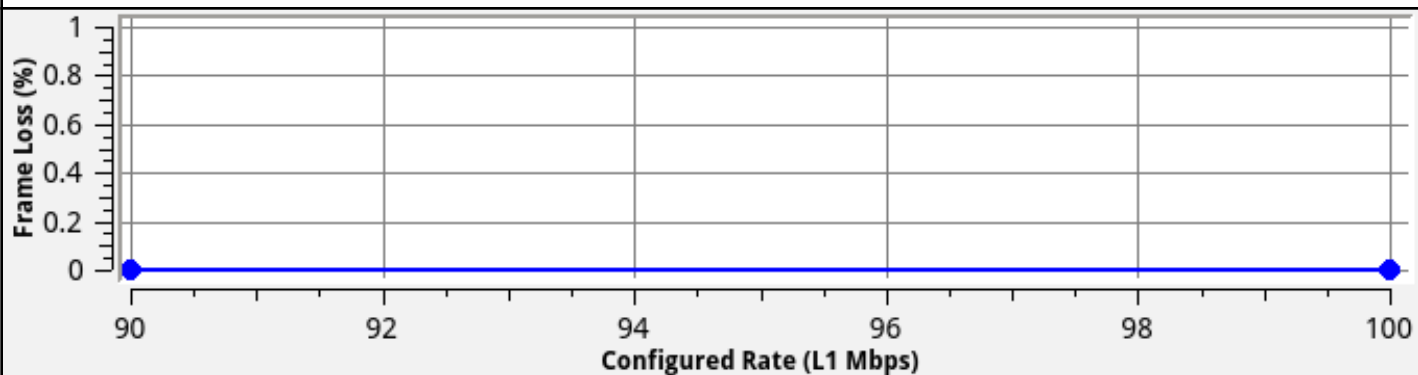
| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: 146 Byte Frame Loss Test Graph****Enhanced RFC 2544: 146 Byte Frame Loss Test Results**

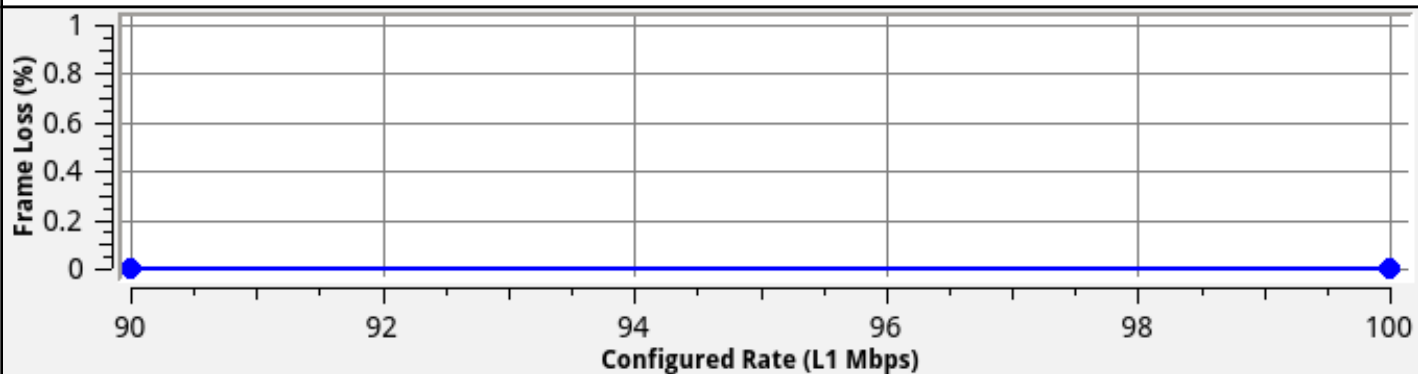
| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: 274 Byte Frame Loss Test Graph****Enhanced RFC 2544: 274 Byte Frame Loss Test Results**

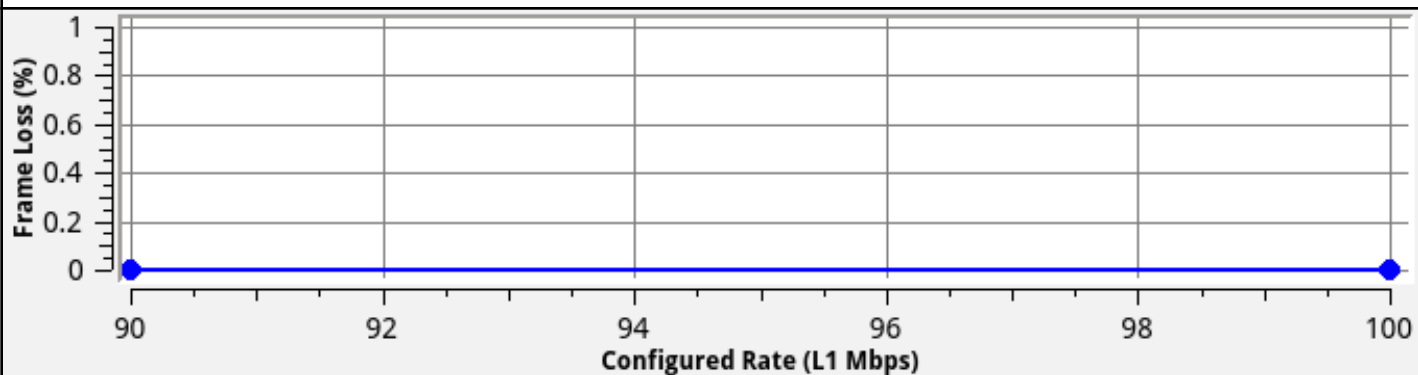
| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: 530 Byte Frame Loss Test Graph****Enhanced RFC 2544: 530 Byte Frame Loss Test Results**

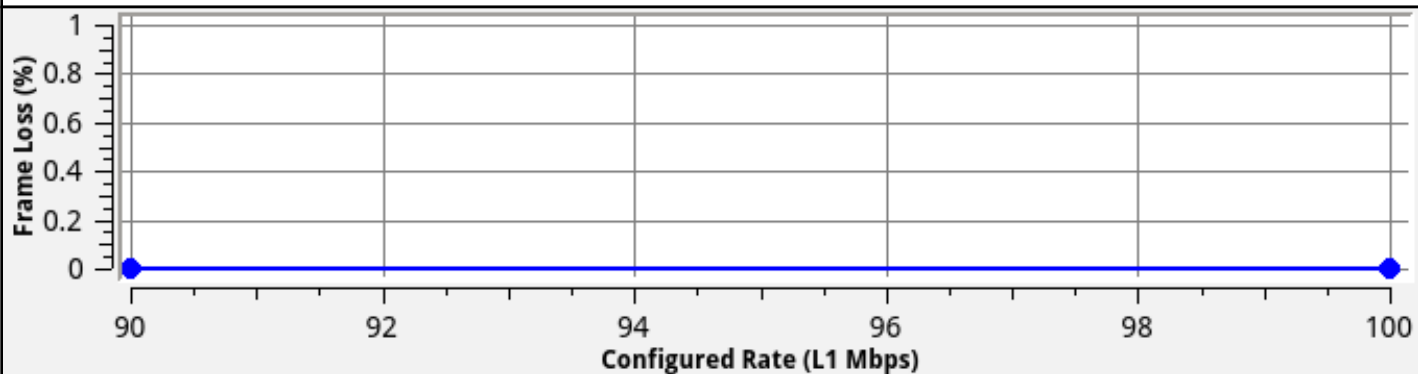
| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: 786 Byte Frame Loss Test Graph****Enhanced RFC 2544: 786 Byte Frame Loss Test Results**

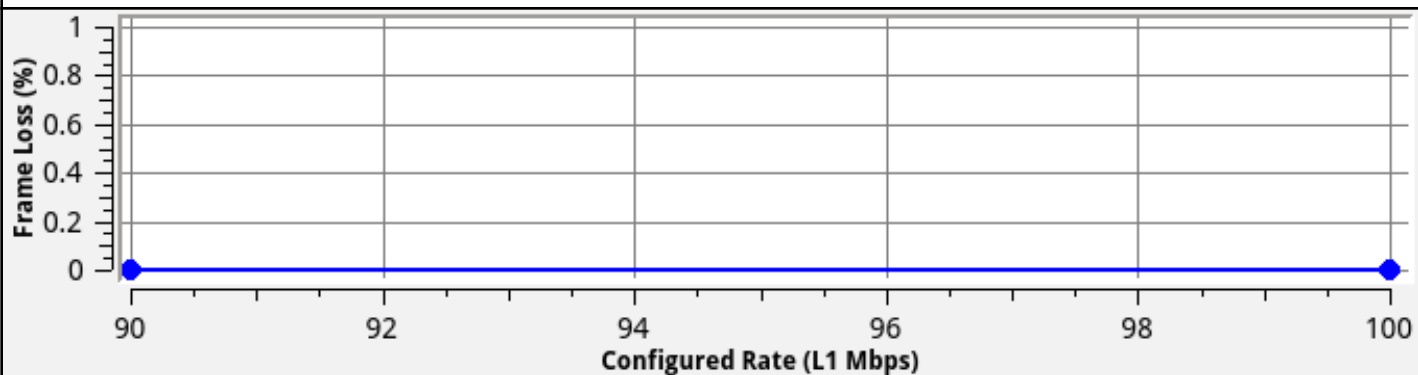
| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: 1042 Byte Frame Loss Test Graph****Enhanced RFC 2544: 1042 Byte Frame Loss Test Results**

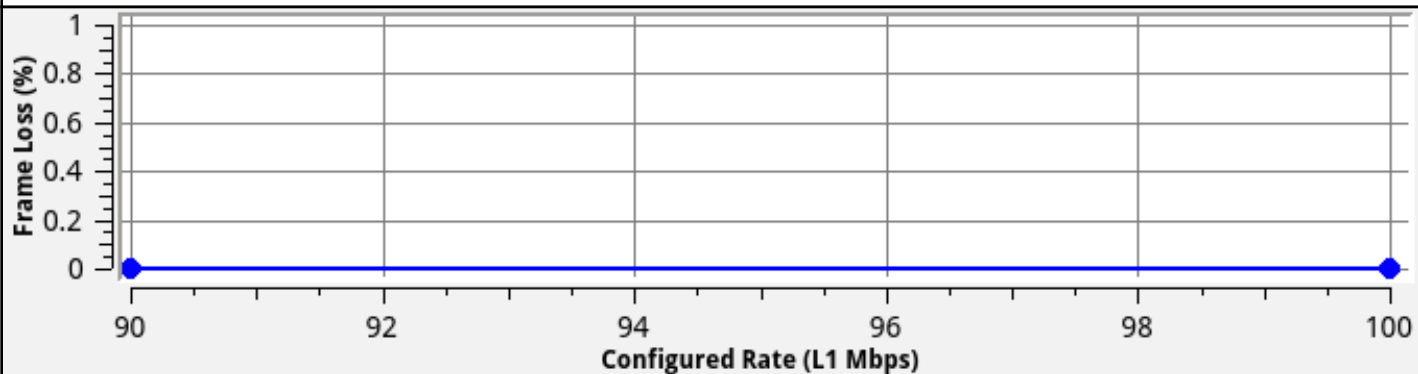
| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: 1518 Byte Frame Loss Test Graph****Enhanced RFC 2544: 1518 Byte Frame Loss Test Results**

| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: 1614 Byte Frame Loss Test Graph****Enhanced RFC 2544: 1614 Byte Frame Loss Test Results**

| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: 9618 Byte Frame Loss Test Graph****Enhanced RFC 2544: 9618 Byte Frame Loss Test Results**

| <i>Throughput Rate (%)</i> | <i>Frame Loss Rate (%)</i> | <i>Frames Lost</i> | <i>Pause Detect</i> | <i>Cfg Rate (%)</i> |
|----------------------------|----------------------------|--------------------|---------------------|---------------------|
| 99.996                     | 0.00                       | 0                  | No                  | 100.000             |
| 90.000                     | 0.00                       | 0                  | No                  | 90.000              |

**Enhanced RFC 2544: Network Configuration**

|                        |                   |
|------------------------|-------------------|
| Frame Type             | DIX               |
| Encapsulation          | None              |
| Source MAC             | 00-80-16-95-10-B6 |
| Destination MAC        | 00-80-16-95-10-B7 |
| Source IP Type         | Static            |
| Source IP Address      | 192.168.1.5       |
| Default Gateway        | 192.168.1.10      |
| Subnet Mask            | 255.255.255.0     |
| Destination IP Address | 192.168.1.3       |
| Time to Live (hops)    | 64                |

**Enhanced RFC 2544: Test Configuration**

|                                |                                                    |
|--------------------------------|----------------------------------------------------|
| Tests to Run                   | Throughput, Latency, Packet Jitter, Frame Loss     |
| Acterna Payload Version        | Version 3                                          |
| Bandwidth Unit                 | %                                                  |
| Max Test Bandwidth (%)         | 100.000                                            |
| Frame Lengths Selected (bytes) | 64, 82, 146, 274, 530, 786, 1042, 1518, 1614, 9618 |

|                                        |                   |
|----------------------------------------|-------------------|
| Throughput Measurement Accuracy        | To within 1.0%    |
| Throughput Zeroing-in Process          | RFC 2544 Standard |
| Throughput Frame Loss Tolerance (%)    | 0                 |
| All Tests Duration (s)                 | 5                 |
| All Tests Number of Trials             | 1                 |
| Throughput Pass Threshold              | Not Selected      |
| Configure Max Bandwidth per Frame Size | Not Selected      |
| Latency Pass Threshold                 | Not Selected      |
| Packet Jitter Pass Threshold           | Not Selected      |
| Frame Loss Test Procedure              | RFC 2544 Standard |
| Frame Loss Bandwidth Granularity (%)   | 10                |
| Test Protection                        | 0                 |