Northern Storm

Field Test
Ryazan, Russia

Distance: 1200 Meters  Speed: 10.31 Gbps Full Duplex

Purpose of Test: Until this year, an affordable 10 Gig point to point link did not exist for commercial customers. Systems at this speed are typically military grade and come with a 7 digit price tag. But the introduction of the NS10G by Northern Storm changed that. Not only is 10 Gbps possible, it is finally affordable.

10 Gbps can get pretty expensive if you lease a fiber connection at $7-10k/month. But not if you buy. Within 6 months it will pay for itself. Get a QuickQuote today.

System Support Solutions

Located in Chaska Minnesota, System Support Solutions is structured to serve customers from around the world. Our staff is available 24x7, seven days a week to handle any inquiry or question you might have.

We are here to serve YOU. Thank you for allowing us to help you with your wireless point to point needs.

Jon Von Rentzell
President & CEO

Installation Services
Since 2001, System Support Solutions has installed more links (600+) than any other North American provider of point-to-point solutions. Our manufacturer-certified installers are proficient across all brands of FSO or RF products.

Their job...is to make the integration to your network environment as seamless as possible. Taking just two days, we promise your vital infrastructure services will go uninterrupted.

Photo courtesy of Wall Street Journal, 10/23/13
Test Results NS10G (10 Gbps)

1. Testing procedure
Tests were conducted on 19th August, 2014 at manufacturers location using communication test equipment Bercut-ETX+1 at the distance 1.2 km.

One Transmit Receive Module (TRM) was installed on the roof of an industrial building, the second TRM – on a portable tripod, in a parking area near a shopping centre. The length of Interface Cables (IC) is 50 meters.

Connection diagram is shown below:
2. Test results

2.1 BERT Measurement for bidirectional (duplex) transmission at 10 Gbps for a 10 minute duration contained no errors:

**BERT test report**

**Tester**: BERcut-BTX+1

**Started**: 19-08-2014 12:40:44

**Stopped**: 19-08-2014 12:50:47

**Configuration**

MAC: 00:21:CE:10:04:49 <-> 00:21:CE:10:05:41

IP address: 192.168.0.101 <-> 192.168.0.102

VLAN: -

**IP**: ToS 0000b; precedence 0

UDP: 60000/50000

**Level**: I

**Pattern**: User (0xAABBCCDD)

**Frame size**: Random; min 64; max 9600

**Rate (L2)**: 100 %

**Duration**: 00:10:00

**Results**

ET: 00:10:00 RT: 00:00:00

**BITs**: 8.071e+11

**EBITs**: 0.000e+00 BER 0.000e+00

**TX Err**: 0

**LSS**: 0.000 %LSS 0.000

**LOS**: 0 %LOS 0.000

![Image of BERT test results](image-url)
## 2.2 Measurement agreeing with RFC-2544

**RFC2544 test report**

**Tester**: BERcut-ETX+1  
**Started**: 19-08-2014 14:17:00  
**Stopped**: 19-08-2014 14:53:23

### Configuration

- **MAC**: 00:21:CE:10:04:49 -> 00:21:CE:10:05:41  
- **IP address**: 192.168.0.101 -> 192.168.0.102  
- **VLAN**: -  
- **IP**: ToS 0000b; precedence 0  
- **UDP**: 60000/50000  
- **Frames**: 64 128 256 512 1024 1280 1518 9600  
- **Throughput**: 10s; rate 100%; resolution 10%; threshold 0%  
- **Latency**: 1 trials; 60s each; rate_source: Throughput  
- **Frame loss**: 15s; 4 steps; start rate 100%; stop rate 10%  
- **Back-to-back**: 1 trials; 60s each; rate_source: Manually

### Rate

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<td>128</td>
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### Latency

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### Frame loss

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### Back-to-back

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3. Conclusion

The NS10G Equipment operated flawlessly in this field test at the indicated distance, confirming the correctness of the technical features put in its specification.