

# Testing Ethernet Networks

This article describes how to test a link attached to an active Ethernet device, in order to measure the combined performance of the link and the device. Every TestPro comes with the capability of testing links and devices at 10Mbps, 100Mbps and 1Gbps Ethernet. If you have the Gigabit option and AD-NETCABLE adapter, you can go further and test to 2.5, 5 and 10Gbps.

# Part 1: Basic testing to 1Gbps

#### 1. Select BASE-T

Power ON TestPro. From the Home Screen, press the BASE-T icon



Remember to use the side port on the unit for this test.

### 2. From the BASE-T screen, select

Autotest. Note that if a valid device is detected at the far end, it will connect automatically

01/04/19 12:51	Main 69%
1G Connected	
Pair	SNR
А	11.5 dB
В	10.8 dB
С	10.9 dB
D	10.9 dB
() Autotest	
Expert Tools	
	3



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#### 3. Test in progress screen



### 4. Test Result Screen

Note the signal to noise ratio is given for each speed. The greater the SNR the better. To see per pair detail, press Detail

01/04/19	14:10	_	Main 68%			
			PASS 🥪			
1 3 5 4 4 7 8 0.0m 0.0m 4 7 8 Approximate Length: 0.0 m						
Summa	ary Det	ail				
Rate	SNR (dB)	Limit (dB)	Margin (dB)			
1G	> 26	0.0	> 26			
100M	12.9	0.0	12.9			
10M	> 26	0.0	> 26			
	3					

In this example the TestPro was connected to a 100Mbps Ethernet port Note that wiremap and length is also reported. Save results if desired



# Part 2: High speed testing to 10Gbps

This test requires the AD-NETCABLE adapter. Connect the MAIN unit to a cable leading to an active Ethernet device

NOTE: if you know the Ethernet switch is limited to 2.5G, you can save test time by deselecting inapplicable speeds. To do this:

#### 1. Press the Project icon



#### 2. Press Edit



#### 3. Press Edit

Main 59%				
ct: Default				
Validation				
Network Link Validation				
IEEE 802.3				
Generic Cat 6A, Generic, Unshielded, NVP: 70%				
Generic Cat 6A, Generic, Shielded				
Simple Label				
Dperator: Default				
Edit				
Profile Manager				

### 4. Press Test Limit





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5. Modify the Test Limits as desired.

Press return until back at main menu

	01/04/19 13:48			61%
	Tes	nit		
	Network Speed		SNR Limit	(dB)
	10G	0		
-	<b>5</b> G	0		
-	<b>2.5</b> G	0		
	<b>1</b> G	0		
	<b>100M</b>	0		
		G		

## 6. Press Multi-Gig



## 7. Press Autotest



### Note the test will cycle from 100Mbps to highest limit set





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# 9. Test results displayed



						PASS
=	_					
		-				
		-				
	C	able	Length:	45.0 r	n	
umm	ary	D	etail	PoE		
SNR Rate	12 (di	2 B)	36 (dB)	4 (d	5 B)	78 (dB)
10G	9.	5	4.9	4.9 3.		7.2
5G	10	.9	7.1	6.	5	10.7
2.5G 12		.2	2 12.4		12.5	
					8	1

PASS	1 2 3 6 5 4 7 8
Cable Length: 45.0 m	1 2 3 6 5 4 7 8
Cable Length: 45.0 m Summary Detail PoE	365478
Cable Length: 45.0 m Summary Detail PoE	4 7 8
Cable Length: 45.0 m Summary Detail PoE	-
Summary Detail PoE	
1	
PSE Type 4	
PD Class 8	
V/I 54.3 V/1.5 A	
RealPower 79.4 W	



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