

# Wire Xpert Patch Cord Test Solution



Test your Cat6<sup>A</sup> patch cords in 9 sec from both ends, and test twice as manypatch cords per replaceable jack Psiber Data launches the industry's best Patch cord test solution overcoming the severe inefficiencies with existing products in the market. Read more to find out how the new Patch Cord solution for WireXpert is the most optimum solution in the world today!

### **Key Benefits**

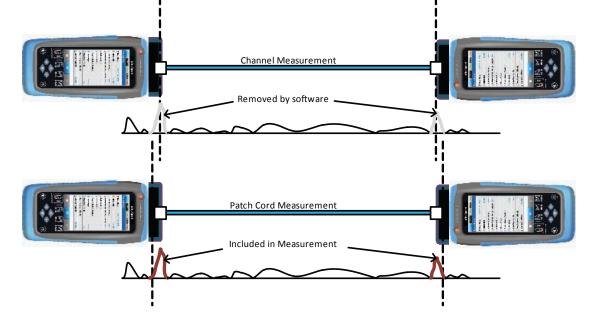
- Reduce your testing time by a factor of 5 with the with a 9 sec CAT6<sup>A</sup> Patch Cord test
- Test both ends of a patch cord in a single test
- Reduce your running costs by half by doubling the life-cycle of each "replaceable" jack
- Test both ends of a patch cord in a single test
- Avoid maintaining multiple records and reports for a Patch Cord. WireXpert gives you one page report for a Patch Cord

### Why test Patch Cords?

Over the years, one of the significant reasons for a cable infrastructure failure has been the use of faulty patch cords. The standards bodies which standardize the structured cabling installations like the TIA/ISO have tried to address this problem since the last decade with stringent requirements qualifying the Patch Cords. But the trouble has always been the availability of an optimal solution for carrying out the tests. The solutions in the market are either too expensive with impractical running costs or took too much time to make such testing prohibitive. But now with the Industry's best Patch Cord testing solution from Psiber allows you to carry out such testing with one click of a button.

#### **Channel Test Vs Patch Cord Testing**

The primary difference between a Channel test and a Patch cord test lies at the "plug-jack" mating of the adapter. In a channel test, the mating is excluded from the qualification criteria whereas in the case of a Patch Cord test the mating is included in the qualification criteria. As a result, Patch Cord testing puts significant emphasis on the RJ45 jack of the adapter and special adapters are required to carry out Patch Cord testing.





## **Testing Patch Cords using WireXpert**

Testing Patch Cords using WireXpert is very similar to performing a channel test. The difference lies in the selection of appropriate limits and selection of an appropriate adapter depending on the category of cable that is used. TIA 568 C.2 and ISO 11801 require the use of specialized RJ45 jacks for each of Cat5e, Cat6, and Cat6<sub>A</sub> testing. This requirement mandates the use of three seperate adapters for testing Cat5e, Cat6, Cat6<sub>A</sub> each. All the patch cord adapters for WireXpert are shielded, the same adapters can be used for testing both shielded and unshielded patch cords.

# Selecting a Test Limit

Selection of test limit for a patch cord adapter should be based on the length of the patch cord being tested along with the category. On the local WireXpert unit, click on the setup menu and select the test limit.

| TIA - Cat 6A Permanent Link              | ISO-PatchCord Cat5e 3m        | Limit ISO-PatchCord Cat6 1m       |
|--|-------------------------------|-----------------------------------|
| P TIA - Cat 6A Channel                   | ISO-PatchCord Cat5e 5m >      | Cable Manufacturer Generic UTP    |
| <sup>26</sup> TIA - Cat 6 Permanent Link | ISO-PatchCord Cat5e 10m >     | Cable Name CAT 6A UTP             |
| P Taiwan                                 | 🤌 ISO-PatchCord Cat6 0.5m 💦 👌 | Cable Type UTP                    |
| Patch Cord / ISO                         | ISO-PatchCord Cat6 1.5m       | Connector Manufacturer Shielded C |
| Patch Cord / TIA                         | ISO-PatchCord Cat6 1m         | Connector Name STP Mod Jack 6     |
|  | ISO-PatchCord Cat6 2.5m       | Connector Type Shielded           |
|  | ISO-PatchCord Cat6 2m         | Measurement Cable Certifications  |
|  | ISO-PatchCord Cat6 3m         | Site Unspecified                  |
|  | ISO-PatchCord Cat6 5m         | A Label Source Simple Labels      |
|  |                               | 🖧 Current Label 🛛 🗛               |
| < 1 2                                    |                               | Test Options On                   |

# Choosing the right adapter

Ensure the appropriate Patch Cord adapter is selected for the category of cabling being tested. The type of adapter used for testing is available in the information page of the setup menu in WireXpert. Psiber offers three different Patch cord adapters each for Cat5e, Cat6, Cat6a solution. Please look at ordering information for detailed information on the part numbers.

| Local ABC              | 2019 🛑            |  |
|------------------------|-------------------|--|
| 7 May 2012, 12:27      |                   |  |
| Local Unit             |                   |  |
| Unit SNo :             | pw20100451        |  |
| Hardware Rev :         | 1.0               |  |
| Software Ver :         | 4.2.7             |  |
| Calibration Due Date : | 19-April-2013     |  |
| Probe Type :           | Cat 6A Patch Cord |  |
| Probe SNo :            | pw2030-9003       |  |
| Probe Test Count :     | 9                 |  |
| Remote Unit            |                   |  |
| Unit SNo :             | pw20100452        |  |
| Hardware Rev:          | 1.0               |  |
| Software Ver :         | 4.2.7             |  |
| Calibration Due Date : | 19-April-2013     |  |
| Probe Type :           | Cat 6A Patch Cord |  |
| Probe SNo :            | pa2030-0005       |  |
| Probe Test Count :     | 35                |  |
|                        |                   |  |
| 11 🌞                   | Î Î               |  |



# Performing Test and generate Reports

Once the connection is made between the local and remote WireXpert using the Patch cord under test, Autotest can be performed by just clicking the Autotest icon. You are only required to test once per patch cord, and both the ends of a patch cord get tested in 9 seconds.

| Return Loss | 2.78 dB >  |
|-------------|------------|
| PS-ACRF     | 29.74 dB > |
| ACRF        | 31.00 dB > |
|             |            |

| To change the<br>Edit below<br>Current Label | abel sequi  | ence, |
|--|-------------|-------|
| Save R<br>Saving Auto<br>A-5                 | ult For Lab | el    |
|  |             |       |

Once the test is complete, the reports can be exported using a USB flash drive and the results can be consolidated using the PC software ReportXpert. WireXpert provides a single page test report per patch cord providing both local and remote end results in a single page report.

| 2                               | Cable Certification Report |                   |                |  | FD                                |                     |                                       |
|---------------------------------|----------------------------|-------------------|----------------|--|-----------------------------------|---------------------|---------------------------------------|
| Project :                       | Sample                     | Site              |                | Unspecifie                               | ad .                              |                     | =                                     |
| Operator :                      | Unspecified                |                   | el Label :     | A-5                                      |                                   |                     | -                                     |
| Building :                      | onspecified.               | Floo              |                | AND                                      |                                   |                     | PASS                                  |
| Room :                          |                            | Rac               |                |  |                                   |                     |                                       |
| Panel :                         |                            | r.a.              |                |  |                                   |                     |                                       |
| Paner.                          |                            |                   |                |  |                                   |                     |                                       |
| Umit :                          | ISO-Pat                    | chCord Cat6 1m    | 1              | -0                                       | 1.91                              |                     | -                                     |
| Tested :                        |                            | 12 12:56:21       |                |  |                                   |                     |                                       |
| Cable Name :                    | CAT 6A                     |                   |                | V Cab                                    | le NVP :                          | 68                  |                                       |
|                                 |                            |                   | 12/2/0         | Proc                                     | agation delay                     | 11.00 ns            |                                       |
| Local :                         |                            | 1451 Cat 6A Patch |                |  | y Skew :                          | 0 ns                |                                       |
| Remote :                        |                            | 452 Cat 6A Patch  | Cord           |  |                                   |                     | l ⊕ l                                 |
| Remote Calibration Di           | ue Date : 19-April-        | 2013              |                | Res                                      | Istance :                         | 0.1 Ohms            |                                       |
| Local Calibration Due           |                            |                   |                |  |                                   |                     |                                       |
| Insertion Loss :                | Local :                    |                   | 0 1            |  | - I ferm                          |                     |                                       |
|                                 |                            |                   |                |  | 2                                 |                     | 2                                     |
| Worst Pair :                    | 7,8                        |                   |                |  | 6-                                |                     | 0                                     |
| Value :                         | 1.33                       |                   | 1              |  | 5000                              |                     | 5                                     |
| Limit :                         | 0.00                       |                   | dB             |  | 4                                 |                     | -4                                    |
| Margin :                        | 118.67                     |                   | 2000           |  | 3                                 |                     | 8                                     |
| Frequency :                     | 217.50                     |                   | 130            | MHz                                      | 250 5000                          | Wire Mar            | S S S S S S S S S S S S S S S S S S S |
| Return Loss :                   | Local :                    | Remote :          | 0              |  | 0                                 |                     |                                       |
| Worst Pair :                    | 7.8                        | 1.2               | -              | -  | 000                               |                     | 200                                   |
| Value :                         |                            | 26.78             |                | N V                                      | No. V. Star                       | NO V                | SAN SA                                |
|                                 | 18.36                      |                   | dB             |  | dB                                | W. V.               |                                       |
| Limita                          | 14.00                      | 24.00             |                |  |                                   |                     |                                       |
| Margin :                        | 4.36                       | 2.78              | 80             |  | 80                                |                     |                                       |
| Frequency :                     | 250.00                     | 24.70             | 1              | MHz                                      | 250 1                             | MHz                 | 250                                   |
| VEXT :                          | Local :                    | Remote :          | 20             | 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | 20                                | 1111                |                                       |
| Worst Pair :                    | 1,2-7,8                    | 1,2-3,6           | 1              | 200 200                                  | Non-Souther                       | Tran Sam            | 000                                   |
| Value :                         | 81.12                      | 55.50             | 0              |  |                                   | and the second      | Martin Law 17                         |
| Limit :                         | 65.00                      | 52 00             | dB 1           |  | dB                                | A DESCRIPTION OF    | des a des a                           |
| Margin :                        | 16.12                      | 3.50              | And Address of |  |                                   | The second second   |                                       |
| Frequency :                     | 10.00                      | 54.50             | 140            | MHz                                      | 250 140                           | MHz                 | 250                                   |
| ACR-F :                         | Local :                    | Remote :          | 0              | (Income)                                 | 0 0                               |                     |                                       |
|                                 |                            |                   | 8              |  |                                   |                     |                                       |
| Worst Pair :                    | 7,8-1,2                    | 4,5-7,8           | -              | -  |                                   | -                   | may por                               |
| Value :                         | 53.84                      | 31.04             | dB Lame        | and  | Y dB                              | - Although and      | Y Y                                   |
| Limit :                         | 0.00                       | 0.00              |                |  | 1                                 |                     |                                       |
| Margin :                        | 53.84                      | 31.04             | 140            |  | 140                               | Construction of the |                                       |
| Frequency :                     | 245.50                     | 249.50            | 1              | MHz                                      | 250 1                             | MHz                 | 250                                   |
| ACR-N :                         | Local :                    | Remote :          | 0              |  | 0                                 |                     |                                       |
| Worst Pair :                    | 1.2-3.6                    | 1.2-3.6           |                |  |                                   |                     |                                       |
| Value :                         | 0.00                       | 0.00              |                |  |                                   |                     |                                       |
| Umit :                          | 0.00                       | 0.00              | dB             |  | dB                                |                     |                                       |
| Margin :                        | 0.00                       | 0.00              | 252            |  | 800                               |                     |                                       |
| Frequency :                     | 1.00                       | 1.00              | 130            | MHz                                      | 250 130                           | MHz                 | 250                                   |
|                                 | VPS 1                      | 6.0003            | 1              | ACRF :                                   | PS ACR                            | 20000204            | 250                                   |
|                                 | Local :                    | Remote :          | Local :        | Remote :                                 | Local : Re                        | mote :              |                                       |
| Worst Pair :                    | 1,2                        | 3,6               | 1.2            | 4,5                                      | 1,2 1,2                           | 100                 |                                       |
| Value :                         | 45.12                      | 45.52             | 35.36          | 29.72                                    | 0.00 0.0                          |                     |                                       |
| Limit :                         | 0.00                       | 0.00              | 0.00           | 0.00                                     | 0.00 0.0                          |                     |                                       |
| Margin :                        | 46.12                      | 45.52             | 35.36          | 29.72                                    | 0.00 0.0                          |                     |                                       |
| Frequency :                     | 248.50                     | 249.00            | 244.00         | 248.00                                   | 1.00 1.0                          | 0                   |                                       |
|                                 |                            |                   |                |  |                                   |                     |                                       |
|                                 |                            |                   |                |  |                                   |                     |                                       |
| Printed :                       | 05/07/2012                 | 13:16:10          |                |  | Signature :                       |                     |                                       |
| Printed :<br>Software Version : | 05/07/2012                 | 13:16:10          |                |  | Signature :<br>ReportXpert Versio | in: 42.7            |                                       |



# **Ordering Information**

| Part Number           | Description   |  |  |
|-----------------------|---|--|--|
| WX_AD_6A_PCORD2       | A pair of Cat6a shielded patch cord adapters suitable for testing both shielded and unshielded patch cords. Test heads are replaceable. |  |  |
| WX_AD_6_PCORD2        | A pair of Cat6 shielded patch cord adapters suitable for testing both shielded and unshielded patch cords. Test heads are replaceable.  |  |  |
| WX_AD_5e_PCORD2       | A pair of Cat5e shielded patch cord adapters suitable for testing both shielded and unshielded patch cords. Test heads are replaceable. |  |  |
| WX_AD_6A_PCTEST_JACK2 | A pair of Cat6A shielded test jack for replacing existing jacks on the Cat6A adapter  |  |  |
| WX_AD_6_PCTEST_JACK2  | A pair of Cat6 shielded test jack for replacing existing jacks on the Cat6A adapter   |  |  |
| WX_AD_5e_PCTEST_JACK2 | A pair of Cat5e shielded test jack for replacing existing jacks on the Cat6A adapter  |  |  |

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