

22<sup>nd</sup> August 2013

**A guide to Woolworths Limited additional requirements**  
**for the testing of twisted pair and fibre installation.**

## **Background**

This document has been prepared by VTI Services and approved by Woolworth's Limited to provide guidelines to the additional requirements for the testing of Woolworth's Limited sites.

## **Document Limitation**

This document is provided for guidance only. All care has been taken in the creation of the document; however no claim that any or all issues have been identified and no responsibility will be accepted for its use. This document reflects VTI Services understanding of Woolworth's Limited requirements at the time of publication; however should there be conflict between this document and the Woolworth's Limited requirements, Woolworth's Limited requirements takes precedence. The testing requirements of Woolworth's Limited may change at any time without notice. Specifications should be read to determine testing requirements before testing is undertaken.

## **General Requirements**

### **Independent test result analysis**

In the interests of ensuring compliance of the performance of the installed cabling system against Australian/New Zealand and specific Woolworth's Limited standards, it is a requirement that all SCS cabling test data be verified by an approved NATA Inspection Body.

This effects all installations, irrespective of the communication contractor or structured cabling system vendor installing communication cabling systems within Woolworth's Limited locations.

Woolworth's Limited require on nominated projects that the fibre and twisted pair test results be submitted to an approved NATA accredited inspection body for evaluation. The associated "Statement of Compliance" and report form part of the acceptance requirements of the project.

Woolworth's Limited's approved NATA Inspection body

**VTI Services**

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Woolworth's Limited requires the verification of test data to Australian and New Zealand Standards along with specified additional Woolworth's requirements

Woolworth's Limited additional requirements form part of the compliance of the report and may include additional elements not associated directly with testing.

1. It is a Woolworth's Limited requirement that all reports generated against Woolworth's Limited requirements be issued from the inspection body directly to Woolworth's Limited at the time of creation

This provides Woolworth's Limited a mechanism to carry out a risk assessment of a site and allow for the installation to be accepted before a Statement of Compliance has been issued.

This acceptance before a Statement of Compliance has been issued minimises the potential delay in practical completion and/or acceptance of a project

## **Test Equipment**

All test equipment shall be in calibration at time of testing

## Twisted Pair Requirements

### Test Requirements

- Permanent link testing shall be carried out to the compliance requirements of AS/NZS3080 Permanent Links.
- Correct adaptors shall be used for all testing (Channel adaptors are unacceptable for permanent link testing).
- Marginal/Conditional Passes (Pass\*) are not acceptable
- Full Plot Data shall be present.
- Test results shall be provided electronically.

### Approved Testers

- Twisted pair testers utilised for testing of Woolworth's Limited installations shall meet defined requirements.
- Testers meeting these requirements which have been approved by Woolworth's Limited include:
  - Fluke DTX1200-Fluke DTX1800.
  - Wirescope 350 and Wirescope PRO.

## Fibre Requirements

- Permanent link testing shall be carried out to the compliance requirements of AS/NZS3080 for all fibre cores.
- LSPM testing shall be carried out in two directions and at two wavelengths on all installed links.
- LSPM Test results will be provided electronically in the testers' native format along with VTI Services fibre reporting sheet. The Woolworth's fibre reporting sheet forms part of the "Additional Criteria Form" and is available on VTI Services Website [www.vti.net.au](http://www.vti.net.au) under downloads.
- Optical fibre mated connectors shall meet the following minimum optical return loss requirements.
  - 20 dB for Multi-mode.
  - 35 dB for Single-mode.
  - Testing of ORL is not required outside of visual inspection of the interface connector.
- The pass fail criteria will be that specified within AS/NZS ISO/IEC 14763.3.

## Woolworth's Limited Specific Requirements

- Necessary reporting including Woolworths additional information, Fibre reporting Sheet and TCA1 Form, shall be provided along with Test results. Without this information assessment of test data cannot take place; deeming the site as “Non-Compliant.”

*The Woolworth's “Additional Criteria Form” is available on VTI Services Website [www.vti.net.au](http://www.vti.net.au) under downloads.*

- Any Backbone and MDF/IFD/TPF to BD tie cables shall be tested for wire map and the results submitted for verification.
- All new projects depending on store types require backbone test results be provided (This is for groups of results not individual tests).

Please note- Required TP Backbone :

- Store type 1 -nil.
- Store type 2- nil.
- Store type 3 - Backbone 25pr (1 group of 6 [4pr] cables)
- Store type 4 - Backbone 25pr (2 groups of 6 [4pr] cables)
- Store type 5 - Backbone 25pr (3 groups of 6 [4pr] cables)
- Store type 6 - Backbone 25pr (4 groups of 6 [4pr] cables)

Backbone will be assessed against:

- Wire-map.
- Length.
- Continuity.

- All new projects require tie cabling test results to be provided

The tie cable shall be tested as single pairs. Each single pair that connects MDF/IFD/TPF to BD shall be tested for:

- Wire-map.
- Continuity.

The SCS BD side of 25-pair UTP MDF/IDF/TPF Tie cables shall be terminated within the SCS BD onto a CAT6 patch panel, with each pair of the 25-pair cable terminated on a port on the CAT6 patch panel, As shown in the below table;

**\*Please note: The 25<sup>th</sup> Pair is required to be terminated**

| <b>25-Pair number</b> | <b>Mate</b> | <b>Colour</b> | <b>CAT6 Patch panel</b> |
|-----------------------|-------------|---------------|-------------------------|
| 1                     | White       | Blue          | Port 1 - Pin 4/5        |
| 2                     | White       | Orange        | Port 2 - Pin 4/5        |
| 3                     | White       | Green         | Port 3 - Pin 4/5        |
| 4                     | White       | Brown         | Port 4 - Pin 4/5        |
| 5                     | White       | Grey          | Port 5 - Pin 4/5        |
| 6                     | Red         | Blue          | Port 6 - Pin 4/5        |
| 7                     | Red         | Orange        | Port 7 - Pin 4/5        |
| 8                     | Red         | Green         | Port 8 - Pin 4/5        |
| 9                     | Red         | Brown         | Port 9 - Pin 4/5        |
| 10                    | Red         | Grey          | Port 10 - Pin 4/5       |
| 11                    | Black       | Blue          | Port 11 - Pin 4/5       |
| 12                    | Black       | Orange        | Port 12 - Pin 4/5       |
| 13                    | Black       | Green         | Port 13 - Pin 4/5       |
| 14                    | Black       | Brown         | Port 14 - Pin 4/5       |
| 15                    | Black       | Grey          | Port 15 - Pin 4/5       |
| 16                    | Yellow      | Blue          | Port 16 - Pin 4/5       |
| 17                    | Yellow      | Orange        | Port 17 - Pin 4/5       |
| 18                    | Yellow      | Green         | Port 18 - Pin 4/5       |
| 19                    | Yellow      | Brown         | Port 19 - Pin 4/5       |
| 20                    | Yellow      | Grey          | Port 20 - Pin 4/5       |
| 21                    | Violet      | Blue          | Port 21 - Pin 4/5       |
| 22                    | Violet      | Orange        | Port 22 - Pin 4/5       |
| 23                    | Violet      | Green         | Port 23 - Pin 4/5       |
| 24                    | Violet      | Brown         | Port 24 - Pin 4/5       |
| 25*                   | Violet      | Grey          | Port 24 - Pin 1/2       |