

Technical Note

Class E_A / Category 6_A Extended Distances



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Date: January 2012

This technical note offers guidance with respect to installed channels over 100m and links over 90m using Excel Screened Class E_A / Category 6_A cabling systems.

The Excel warranty is standards based to ensure that all of the protocols and applications will run on an installed system. Included within the International Standards cabling channels have a maximum length as one of the parameters to ensure compliance.

In the case of Class E_A / Category 6_A the maximum Channel length is 100m. Where the installation exceeds this parameter, and therefore fails the test, this will result in the exclusion from the warranty for that specific Link/Channel.

However, Excel accepts that on a specific Link/Channel basis there are occasions where these lengths are exceeded. Excel has carried out testing to determine the maximum length that can be achieved for a given application. The testing has been based on the following Excel Products:

- Excel Cat 6_A LSOH Screened Cable
- Excel Cat 6_A Screened Tool-less Jack
- Excel Cat 6_A Screened LSOH Patch Cord – Blue – 5m

The tests carried out were the Application Specific Test using the Fluke DTX-1800 Cable Analyzer with the appropriate Permanent Link Adapters. The results show a pass in all parameters with the exception being length.

Our configuration testing has shown that correctly installed product from the above will pass the above criteria to the following lengths:

| Application | Permanent Link Length | Channel Link Length (consisting of 5+5m Patch Cord) |
|-------------|-----------------------|---|
| 10BASE-T | 170m | 180m |
| 100BASE-TX | 120m | 130m |

1000BASE-TX is only supported with a fully compliant installation, including length of a 100m channel maximum.

These distances are offered in good faith and subject to continuing development and improvement.

This Technical Note has been produced by Simon Robinson, Product Manager

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