

Technical Note

Class E / Category 6 Extended Distances



Title: TN02a_Cat6_Over_length

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This technical note offers guidance with respect to installed channels over 100m and links over 90m using Excel Class E / Category 6 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 / Category 6 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.

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.

To determine whether a specific Link will support the desired application Excel recommend that the test is carried out with the Application Specific Test using the Fluke DTX-1800 Cable Analyzer. As these links are over length a further Channel test should be carried out with the specific configuration required. This will give the best indication for the specific channel of the likelihood of the desired application working.

These distances are offered in good faith and subject to continuing development and improvement. The Excel Warranty excludes the specific links, and therefore channels, that are over length (90m and 100m respectively).

This Technical Note has been produced by Simon Robinson, Product Manager, on behalf of Excel

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