

# Understanding Transmission Lines, Screening & Cabling 1 Day Course

## Why attend?

Transmission line theory is essential not only in RF and microwave communications but also in the design of fast digital circuits and the understanding of electromagnetic compatibility (EMC) problems. It provides a link between circuit analysis and electromagnetics.

This 1 day course covers both the fundamental theory of transmission lines and its practical applications to propagation, impedance matching, coupling and cross-talk, especially in the fields of EMC and RF Communications.

Cross-talk is generally the unwanted propagation of noise or interference between transmission lines, but the same effect can be utilised in the design of RF components such as directional couplers.

## Who should attend?

Engineers working in fields such as EMC, digital circuit design and RF and microwave communications, who require an understanding of transmission line theory and its applications to cross-talk, cable screening and related areas.

## Your programme includes:

- Transmission line theory: distributed (per-unit-length) parameters, velocity and characteristic impedance
- Reflections and impedance matching
- The Smith Chart
- S-parameters and network analysers
- Cross-talk in the frequency domain and time domain
- Cross-talk: coupling mechanisms
- Cable screening and grounding

Available: On Request

## Would you prefer an in-house or bespoke course?

Here at Eurofins York we can deliver most of our courses on-site and even tailor courses to your own personal requirements.



## Key Benefits

6  
CPD HOURS

- An understanding of Transmission Lines
- Full discussion of properties and effects
- Coupling mechanisms
- Mitigation Methods

