

Product Description

Common Mode EMI Filter provides insertion loss of 30 dB of coupled signals (Electromagnetic interference signals) without adversely affecting the DSL signal (differential mode). This helps to reduce the effect of EMI on DSL signals

In theory, twisted pairs are perfectly balanced.

As such, both Tip and Ring receive interfering signals with same amplitude and phase. Due to the fact that twisted pairs are transferring signals in differential mode (signal on Tip minus signal on Ring), the perfect balance will result in any coupled signals on tip and ring being canceled.

Practically, twisted pairs are not perfectly balanced and interfering signals on Tip and Ring are not the same in amplitude and phase. Coupled signals on Tip and Ring will not be canceled.



Features

- Provides very small insertion loss in differential mode (Tip – Ring), typically less than 0.25 dB in xDSL Band (25 kHz to 30 MHz).
- Provides very good matching impedance to 100 Ω : Return loss-relative to 100 Ω typically > 25 dB in xDSL band.
- Provides high Common Mode Insertion Loss (Tip to GND, Ring to GND), typically higher than 30 dB in xDSL band.

Connection

- Connect one to the IDC connector marked "DSL Splitter" to DSL port of the splitter. (2 IDC connectors marked "DSL Splitter" are in parallel – connection to just one IDC is sufficient).
- Connect one to the IDC connector marked "To Modem" to modem using twisted pair cable (24 AWG). (2 IDC connectors marked "To Modem" are in parallel – connection to just one IDC is sufficient).

Ordering information

Comtest product

Ordering code

Model 4706 Common Mode EMI Filter with TJSA-4706-0001