

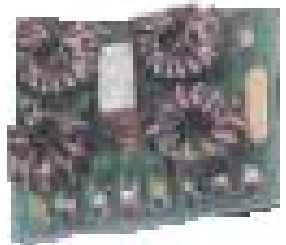
RJ 45 Jack

To meet customer demands for high speed internet and other types of networks, the filtering requirements for the interconnects must keep pace with the higher signal rates. The filter elements used today are becoming ineffective due to imbalances inherent in their design. Product miniaturization is at odds with designers who must pack more and devices into a connector design to ensure proper filtering. Most RJ 45 Jacks integrate wound magnetics and capacitive devices to reduce signal cross talk and electromagnetic interference (EMI). X2Y Technology can reverse the trend towards higher density and provide the performance needed as we move to an age of Gigabit data speeds.

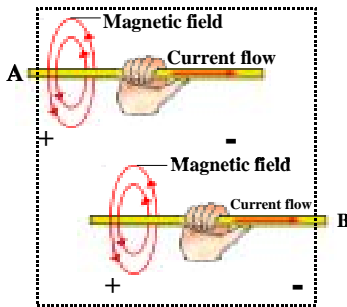
X2Y Solution



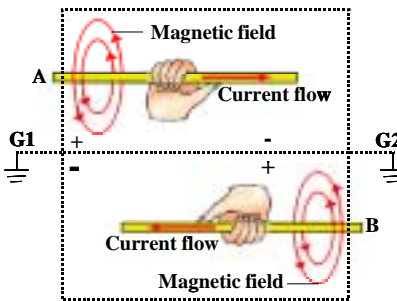
Old Solution



Standard Capacitor

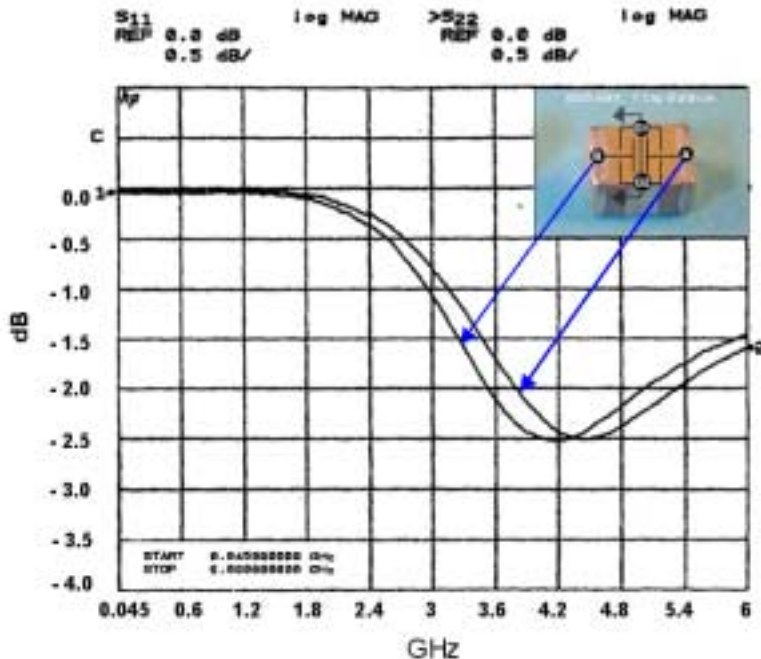


X2Y



Comparison:
Unlike a standard capacitor, X2Y uses internal cancellation of opposing magnetic fields to broaden the capacitors effectiveness and remove the need for wound magnetics in a circuit

Standard capacitors have series inductance, which narrows frequency effectiveness. X2Y's internal design creates two matched capacitors in one device to cancel opposing mutual inductance and broadens frequency effectiveness, allowing removal of wound magnetics. The data below demonstrates the internal balance of the X2Y structure from 45MHz to 6 GHz using a Network Analyzer. A single X2Y component placed between matched pins provides balanced filtering and exceptional cross talk attenuation due to internally shielded electrodes.



X2Y® Benefits:

- Eliminates magnetics
- Balanced filter performance
- High cross talk attenuation
- Differential and Common mode filtering in a single device.

X2Y has PC board prototype capability and can work with your present connector suppliers to design an X2Y filter solution specific to your application.

For more information on how X2Y Technology can benefit your designs, please contact: x2y@x2y.com