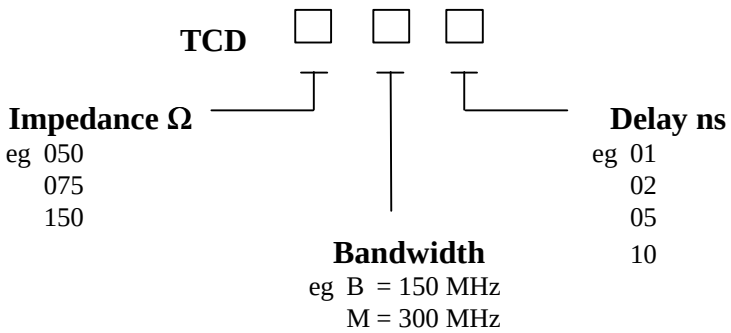
TCD DELAY LINES

ULTRA HIGH SPEED - WIDE BANDWIDTH

The TCD range are ultra high speed balanced delay lines for wideband applications. Various impedances can be supplied with delay times up to a possible 10 ns. Delay lines can be cascaded to increase delay time. The TCD-B range provides an amplitude roll off of less than 0.7 dB to 150 MHz with >20 dB return loss. The TCD-M range has a 3 dB bandwidth of >300 MHz with better than 14 dB return loss. Both ranges have flat group delay which together with above characteristics provide minimal ringing with applied rise times as fast as 3 ns.

Applications include use in video distribution systems where twisted pair cables have been used rather than more expensive coaxial cable. Insertion of these delay lines prior to the cable driver or after the cable receiver, allow the matching of delays of individual RGB channels to prevent mis-alignment of pixels in computer generated graphics. This mis-alignment can be introduced by variations in the number of twists per unit length which can create a differential delay between pairs of conductors within the same cable.

Type No:



Example Part No: TCD075B02 is a 75 Ω, 150 MHz, 2 ns delay line.
Maximum allowable product of Impedance (Ω) x Delay (ns) is 500 in package DR00165A (eg 050 x 10 = 500). Please contact factory regarding increased impedance/delay products.

Specification:

Part Number	**TCD...B..**	**TCD...M..**
Passband	150 MHz	300 MHz
Passband roll-off	< 0.7 dB	< 3 dB
Insertion loss at 100 kHz	< 0.1 dB	< 0.1 dB
Delay time tolerance	< ± 5%	< ± 5%
Group delay ripple	< 0.5 ns	< 2 ns
Return loss	> 20 dB	> 14 dB
Package	DR00165A	DR00165A

PACKAGE DETAIL