

LVDS Trace Routing Guidelines

Parameter	Trace Routing
Maximum signal line length to the LVDS connector (coupled traces)	8.75 inches
Signal length used on COM Express Module (including the COM Express Carrier Board connector)	2.0 inches
Signal length to the LVDS connector available for the COM Express Carrier Board	6.75 inches
Differential Impedance	100 Ω +/-20%
Single-ended Impedance	55 Ω +/-15%
Trace width (W)	4mils (microstrip routing) (*)
Spacing between differential pair signals (intra-pair) (S)	7mils (microstrip routing) (*)
Spacing between pair to pairs (inter-pair) (s)	Min. 20mils
Spacing between differential pairs and high-speed periodic signals	Min. 20mils
Spacing between differential pairs and low-speed non periodic signals	Min. 20mils
Length matching between differential pairs (intra-pair)	+/- 20mils
Length matching between clock and data pairs (inter-pair)	+/- 20mils
Length matching between data pairs (inter-pair)	+/- 40mils
Spacing from edge of plane	+/- 40mils
Reference plane	GND referenced preferred
Via Usage	Max. of 2 vias per line