

*SDVO Trace Routing Guidelines*

Parameter	Trace Routing
Transfer Rate / SDVO Lane	Up to 2.0 GBit/s
Maximum signal line length (coupled traces)	7 inches
Signal length used on COM Express Module (including the Carrier Board connector)	2 inches
Signal length allowance for the COM Express Carrier Board	5 inches to SDVO device
Differential Impedance	100 $\Omega$ +/-20%
Single-ended Impedance	55 $\Omega$ +/-15%
Trace width (W)	5 mils (microstrip routing) (*)
Spacing between differential pairs (intra-pair) (S)	7 mils (microstrip routing) (*)
Spacing between pairs-to-pair	Min. 20mils
Spacing between differential pairs and high-speed periodic signals	Min. 50mils
Spacing between differential pairs and low-speed non periodic signals	Min. 20mils
Length matching between differential pairs (intra-pair)	Max. 5mils
Length matching between differential pairs (inter-pair)	Keep difference within a 2.0 inch delta.
Length matching between differential signal pair and differential clock pair	Max. 5mils
Spacing from edge of plane	Min. 40mils
Via Usage	Max. 4 vias per differential signal trace
AC coupling capacitors	AC coupling capacitors on the signals 'SDVO_INT+' and 'SDVOINT-' have to be implemented on the customer COM Express Carrier Board, if the device is directly located on the carrier board. When using a slot at the carrier board the capacitors are located at the addon card. Capacitor type: X7R, 100nF +/-10%, 16V, shape 0402.