



IN

OUT

Route D\_P and D\_N as differential pair  
90 Ohm  $\pm$  15% differential impedance  
30 Ohm  $\pm$  30% common mode impedance  
For 2 layer OSHPark PCB,  $\epsilon_r=4.5$   
40 mil width, 20 mil sep, 6 mil clearance, 60 mil core

create\_bmp\_for\_microstrip\_coupler -b 8 40.0 20.0 10.0 60.0 1.4 1.0 4.5 usb\_2layer.bmp  
atlc -d 0xac82ac=4.3 usb\_2layer.bmp

# Front Panel – USB

TITLE: fp\_usb

Document Number:

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Sheet: 1/1