Guidelines:

General Guidelines:

* Mechanical Board Dimension:
* Board Thickness: .5mm
* Board Name: Media Bar
* Revision: 1.0
* Impedance controlled routing
* 50 Ohm Single Ended
* 100 Ohm Differential
* 01005 Capacitors/Resistors can be placed on the bottom side of the board
* T1 Can be on the bottom of board
* T2 can be placed on the bottom of the board

**Sheet Specific Guidelines:**

**Block Diagram: Nothing**

**FPGA Top: Nothing**

**FPGA Config:**

R33 Should be placed as close as possible to Pin W18

**FPGA Banks:**

TX\_P/TX\_N are differential signals that should be routed 100 Ohms differential and 50 Ohms single ended, differential trace lengths should be matched within 20mils

TX\_CLK\_P/TX\_CLK\_N are differential signals that should be routed 100 Ohms differential and 50 Ohms single ended, differential trace lengths should be matched within 20mils

RX\_P/RX\_N are differential signals that should be routed 100 Ohms differential and 50 Ohms single ended, differential trace lengths should be matched within 20mils

RX\_CLK\_P/RX\_CLK\_N are differential signals that should be routed 100 Ohms differential and 50 Ohms single ended, differential trace lengths should be matched within 20mils

C60 should be placed as close as possible to U3C and U3D

C61 should be placed as close as possible to U3A and U3B

**FPGA SERDES**

**FPGA Power**

All 01005 capacitors on page 4 should be placed underneath the FPGA

**Audio**

C42 and C43 should be close to U15 pins 24, 25

C45 and C46 should be close to U15 pins 10 and 9 respectively

U15 and U8 should be relatively close to each other

**Host Comm**

All high speed signals that touch the TVSs should be routed in a 'fly-by' fashion where the signals should pass underneath the pads of their respective signals

The differential signals that touch R15, R16, R37, R36, R65, R66, R67 and R68 should be routed in a 'fly-by' fashion

**Power**

Place all bypass capacitors close to their respective regulators