

## Differential Pairs

Conductor Width (W)

**0.20 mm**

Conductor Spacing (S)

**0.13 mm**

Conductor Height (H)

**0.196 mm**

Applied Voltage

**1 Volts**

Coupled Length

**2.54 mm**

Signal Risetime

**1 ns**

Target Zdiff

**90 Ohms**

+/- Tolerance = 10%



Target Zdiff Plus

**101.250 Ohms**

Target Zdiff Minus

**78.750 Ohms**

Formula Restrictions:

$0.1 < W/H < 3.0$

$0.1 < S/H < 3.0$

Differential Protocol

**USB 2.X**

Send to Via Calculator

Zdifferential

**90.298 Ohms**

Zo

**60.516 Ohms**

Zodd

**45.149 Ohms**

Zeven

**81.112 Ohms**

? Help

Kb (Term)

**0.1454**

dB

**-16.747**

NEXT Voltage

**0.0045 V**

Kb' (Unterm)

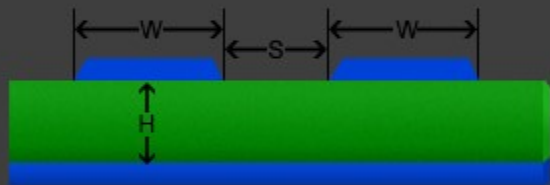
**0.2848**

dB

**-10.908**

NEXT Voltage

**0.0088 V**



## Options

Base Copper Weight

- ☐ 9um
- ☒ 18um
- ☐ 35um
- ☐ 53um
- ☐ 70um
- ☐ 88um
- ☐ 106um
- ☐ 142um
- ☐ 178um

Plating Thickness

- ☐ Bare PCB
- ☐ 18um
- ☒ 35um
- ☐ 53um
- ☐ 70um
- ☐ 88um
- ☐ 106um

Differential Layer

- ☒ Edge Cpld Ext
- ☐ Edge Cpld Int Sym
- ☐ Edge Cpld Int Asym
- ☐ Edge Cpld Embed
- ☐ Broad Cpld Shld
- ☐ Broad Cpld NShld

## Information

Total Copper Thickness  
53 um

W/H = 1.020

S/H = 0.663

Lsat = 82.45 mm



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