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## Stack Report (STKNONBGA349) Customer Input Project Name / Ethernet switch/1 2 Rev 2.56 inches X 2.21 **PCB Size** inches **Board Type** Rigid ? Material FR370HR **Finished** 0.062 inche Thickness ? Layer 4 Count ? STD / HDI STD ? 1 Oz **✓** Stackup ? Layer 2Signal 2Pla 🗸 Combinati on ? Layer SP-PS Sequence 4L\_0-4-0\_2S

## Stackup

Layer#	Material	Layer Type	Copper %			Finished Thickness (Mils)	Dielectric or Copper Base Thickness (Mils)	Copper Plating Thickness (Mils)	Dielectric Description (Mils)	Er (Dk @10 GHz)
	Solder Mask				П	0.5	0.5 mils		Soldermask 0.5 mils	4.2
1	Foil	Signal	24%			1.45	0.35 (0.25 oz)	1.1		
	Prepreg					4.296	4.8		FR370HR Prepreg 4.8 mils	3.54
2	Copper	Plane	64%	Ш		1.4	1.4 (1 oz)			
	Core					47	47		FR370HR Core 47 mils 1 oz / 1 oz	4.24
3	Copper	Plane	64%			1.4	1.4 (1 oz)			
	Prepreg					4.296	4.8		FR370HR Prepreg 4.8 mils	3.54
4	Foil	Signal	24%	7 🗆		1.45	0.35 (0.25 oz)	1.1		
	Solder Mask			+		0.5	0.5 mils		Soldermask 0.5 mils	4.2

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## Impedance Calculator

Sr. No.	Signal Layer	Target Impedance (ohm) (tol- 10%)	Tx Line model	Ref 1	Ref 2	Trace Width (mils)	Trace Spacing (mils)	TPS = W + S (mils)	Coplanar Spacing (mils)	Calculated Impedance (Ω)	Calculated Impedance before Mask (Ω)	Propagation Delay (ps/inch)
1	1	100	Coated Microstrip Differential Pair	2		4.45	5	9.45		100.35	115.367	143.095

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PCB TECHNOLOGY LEVELS	Level 1	Level 2	Level 3
Mechanical Via Diameter (in mils)	8	7	6
Mechanical Via Pad Diameter (in mils)	14	13	12
Trace Width Top Layer (in mils)	5	4	4
Trace Width Inner Layers (in mils)	4	3.5	3
Trace Width Bottom Layer (in mils)	5	4	4
Cost Index	1.26	1.54	1.95

Via Set Information

This Stackup supports the following Via Set

L1-L4

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10/17/22, 11:57 AM Stackup Designer

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