

Job number: 62834	Material: PCL-370HR	<b>Stackup Report</b> Report v1.36      Internal		<b>G O R I L L A</b> C I R C U I T S   I N C.		
Part number: HSC 13045	Impedance: Yes					
Customer: ANALOG DEVICES MA	Date: 12-Dec-2013					
Panel size: 16X18	Created by: ALTAGRACIA					

Layer	Type	CU Weight	CU %	Material Description	Via Structure	Segment	Glass Style	Material Family	Dielectric constant	Copper Plating Thickness (mils)	Thickness after lamination (mils)
Soldermask											0.80
I1comp	Signal	H	26	Press thk = 8.11 mil		Foil					2.30
						Prepreg	1080(65)	PCL-370HR	3.9	1.70	8.11
							1080(65)	PCL-370HR	3.9		
							1080(65)	PCL-370HR	3.9		
I2pp	Plane	1.0	51	6.0 mil 1/1		Core		PCL-370HR	3.9		1.20
I3sig	Signal	1.0	26	Press thk = 6.08 mil		Prepreg	2113(58)	PCL-370HR	3.9		6.00
							2113(58)	PCL-370HR	3.9		1.20
I4pp	Plane	1.0	64	3.0 mil 1/1		Core		PCL-370HR	3.9		1.20
I5pp	Plane	1.0	49	Press thk = 3.16 mil		Prepreg	106(75)	PCL-370HR	3.9		3.00
							106(75)	PCL-370HR	3.9		1.20
I6pp	Plane	1.0	48	3.0 mil 1/1		Core		PCL-370HR	3.9		1.20
I7pp	Plane	1.0	64	Press thk = 6.08 mil		Prepreg	2113(58)	PCL-370HR	3.9		3.00
							2113(58)	PCL-370HR	3.9		1.20
I8sig	Signal	1.0	26	6.0 mil 1/1		Core		PCL-370HR	3.9		6.08
I9pp	Plane	1.0	51	Press thk = 8.11 mil		Prepreg	1080(65)	PCL-370HR	3.9		1.20
							1080(65)	PCL-370HR	3.9		6.00
							1080(65)	PCL-370HR	3.9		1.20
I10sold	Signal	H	26			Foil				1.70	8.11
Soldermask											2.30
											0.80

Specification (Over mask on plated copper.):	mil
Overall Board Thickness:	63.0
Tolerance:	+7.0/-7.0
Min-Max Board Thickness:	56.0-70.0

Anticipated Board Thickness:	mil
After lamination:	60.3
Over mask on plated copper.:	65.3

#### Impedance Table

Layer	Impedance Requirement [ohms]	Tolerance [ohms]		Type	Upper Ref	Lower Ref	Designed Line Width [mil]	Designed Spacing [mil]	Coplaner Spacing [mil]	Finished Line Width [mil]	Finished Spacing [mil]	Impedance Simulation [ohms]
		+	-									
I1comp	50	5.0	5.0	Coated microstrip SE	--	I2pp	15.50	--	--	14.50	--	49.2
I1comp	100	10.0	10.0	Coated microstrip Diff	--	I2pp	10.00	9.00	--	9.25	9.75	99.3
I3sig	50	5.0	5.0	Single-Ended	I4pp	I2pp	8.00	--	--	5.00	--	49.7
I8sig	100	10.0	10.0	Differential	I7pp	I9pp	5.00	5.00	--	4.00	6.00	99.9
I8sig	50	5.0	5.0	Single-Ended	I7pp	I9pp	8.00	--	--	5.00	--	49.7
I10sold	50	5.0	5.0	Coated microstrip SE	--	I9pp	15.50	--	--	14.50	--	49.2
I10sold	100	10.0	10.0	Coated microstrip Diff	--	I9pp	10.00	9.00	--	9.25	9.75	99.3

#### Please Note:

IPC-6012 has a minimum dielectric requirement of 0.003543" and any targeted dielectric thickness of 0.0045" or less may violate this requirement.

Acceptance of this proposed stack-up will be taken as a waiver for this requirement. Note that with this exception, the minimum dielectric thickness shall be 0.000984". If this is not acceptable please get back to us ASAP so we can make the necessary changes.

If we do not hear back from you within 24 hours, we will proceed with this stack-up. Note that the granting of this waiver does not affect the product meeting IPC-6012 Class 2 or Class 3 requirements. Also note that targeted thickness .0046" and greater shall have a minimum tolerance of +/- .001 after lamination.