

*** Valued Customer: If this stackup is accepted, please add this PDF to the production data package ***

Job number: TS522	Material: PCL-370HR	Stackup Report	G O R I L L A	
Part number: ONSEMI4LAYERSTACKUP	Impedance: Yes			
Customer: ON SEMICONDUCTOR	Date: 09-Jul-2018			
Panel size: 16X18	Created by: TERESA.S			
		Report v1.40	External	

Layer	Type	CU Weight	CU %	Material Description	Via Structure	Segment	Glass Style	Material Family	Copper Plating Thickness [mil]	Thickness after lamination [mil]
Soldermask										0.80
L1	Signal	H	20	Press thk = 3.34 mil		Foil				2.00 *
L2	Plane	1.0	70	3.0 mil 1/-		Prepreg	2113(58)	PCL-370HR		3.34
	Blank / Targets			Press thk = 8.70 mil		Core		PCL-370HR		1.20
						Prepreg	1080(65)	PCL-370HR		3.00
							1080(65)	PCL-370HR		8.70
							1080(65)	PCL-370HR		
	Filler			21.0 mil -/-		Core		PCL-370HR		21.00
				Press thk = 8.70 mil		Prepreg	1080(65)	PCL-370HR		8.70
							1080(65)	PCL-370HR		
							1080(65)	PCL-370HR		
	Blank / Targets			3.0 mil -/1		Core		PCL-370HR		3.00
L3	Plane	1.0	70	Press thk = 3.34 mil		Prepreg	2113(58)	PCL-370HR		1.20
L4	Signal	H	20			Foil				3.34
Soldermask										2.00 *
										0.80

* Estimated Cu Plating for reference use only.

Specification (Over mask on plated copper):	mil
Overall Board Thickness:	59.12
Tolerance:	+5.9/-5.9
Min-Max Board Thickness:	53.2-65.0

Anticipated Board Thickness:	mil
After lamination:	54.68
Over mask on plated copper::	59.08

Impedance Table

Layer	Impedance Requirement [ohms]	Tolerance [ohms]		Type	Upper Ref	Lower Ref	Designed Line Width [mil]	Designed Spacing [mil]	Coplanar Spacing [mil]	Finished Spacing [mil]	Impedance Simulation [ohms]
		+	-								
L1	43	4.3	4.3	Coated microstrip SE	--	L2	7.00	--	--	--	42.1
L1	45	4.5	4.5	Coated microstrip SE	--	L2	6.00	--	--	--	45.3
L1	50	5.0	5.0	Coated microstrip SE	--	L2	5.00	--	--	--	49.1
L4	43	4.3	4.3	Coated microstrip SE	--	L3	7.00	--	--	--	42.1
L4	45	4.5	4.5	Coated microstrip SE	--	L3	6.00	--	--	--	45.3
L4	50	5.0	5.0	Coated microstrip SE	--	L3	5.00	--	--	--	49.1

Remarks:

Please Note: The stackup may change if the final manufacturing data is different from the information used to create this stackup

Mat Typ	Material Description	Rsn%	PNL	1 Pnl	Notes
Foil	Foil - 0.5 oz - Foil		16x18	2	
Core	PCL-370HR - 3.0 mil 1/1		16x18	2	
Core	PCL-370HR - 21.0 mil 0/0		16x18	1	
Prepreg	PCL-370HR - 1080	65%	16x18	6	
Prepreg	PCL-370HR - 2113	58%	16x18	2	

Drill Progs	Technology	Depth
Drill1	Mechanical	54.68

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 +/-0.001 after lamination.