

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

Job number:	TS1002	Material:	TACHYON-100G, PCL
Part number:	049648	Impedance:	Yes
Customer:	ANALOG DEVICES MA	Date:	22-Aug-2018
Panel size:	16X18	Created by:	TERESA.S

Stackup Report

Report v1.40 External

G O R I L L A
C I R C U I T S I N C.



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	5.0 mil H/1		Core		TACHYON-100G		2.00
L2	Plane	1.0	70	Press thk = 6.76 mil		Prepreg	1080(72) 3313(60)	TACHYON-100G TACHYON-100G		5.00
L3	Signal	H	20	3.0 mil H/H		Core		TACHYON-100G		1.20
L4	Plane	H	70	Press thk = 4.26 mil		Prepreg	106(75) 106(75)	PCL-370HR PCL-370HR		6.76
L5	Plane	1.0	70	3.0 mil 1/1		Core		PCL-370HR		0.60
L6	Plane	1.0	70	Press thk = 4.08 mil		Prepreg	106(75) 106(75)	PCL-370HR PCL-370HR		3.00
L7	Plane	1.0	70	3.0 mil 1/1		Core		PCL-370HR		1.20
L8	Plane	1.0	70	Press thk = 4.26 mil		Prepreg	106(75) 106(75)	PCL-370HR PCL-370HR		1.20
L9	Plane	H	70	3.0 mil H/H		Core		TACHYON-100G		4.26
L10	Signal	H	20	Press thk = 6.76 mil		Prepreg	3313(60) 1080(72)	TACHYON-100G TACHYON-100G		0.60
L11	Plane	1.0	70	5.0 mil 1/H		Core		TACHYON-100G		3.00
L12	Signal	H	20							0.60
Soldermask										0.80

* Estimated Cu Plating for reference use only.

Specification (Over mask on plated copper):	mil
Overall Board Thickness:	63.00
Tolerance:	+6.3/-6.3
Min-Max Board Thickness:	56.7-69.3

Anticipated Board Thickness:	mil
After lamination:	58.92
Over mask on plated copper::	63.32

Impedance Table

Layer	Impedance Requirement [ohms]	Tolerance [ohms]		Type	Upper Ref	Lower Ref	Designed Line Width [mil]	Plotted Line Width [mil]	Designed Spacing [mil]	Coplanar Spacing [mil]	Finished Line Width [mil]	Finished Spacing [mil]	Impedance Simulation [ohms]
		+	-										
L1	50	5.0	5.0	Coated microstrip SE	--	L2	9.50	10.25	--	--	9.50	--	50.5
L1	100	10.0	10.0	Coated microstrip Diff	--	L2	4.00	5.00	5.00	--	4.25	4.75	99.9
L3	50	5.0	5.0	Single-Ended	L2	L4	7.00	5.25	--	--	4.75	--	50.2
L3	100	10.0	10.0	Differential	L2	L4	5.25	4.75	5.00	--	4.25	6.00	100.4
L10	50	5.0	5.0	Single-Ended	L11	L9	7.00	5.25	--	--	4.75	--	50.2
L10	100	10.0	10.0	Differential	L11	L9	5.25	4.75	5.00	--	4.25	6.00	100.4
L12	50	5.0	5.0	Coated microstrip SE	--	L11	9.50	10.25	--	--	9.50	--	50.5
L12	100	10.0	10.0	Coated microstrip Diff	--	L11	4.00	5.00	5.00	--	4.25	4.75	99.9

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
Core	PCL-370HR - 3.0 mil 1/1		16x18	2	
Prepreg	PCL-370HR - 106	75%	16x18	6	
Core	TACHYON-100G - 3.0 mil H/H		16x18	2	
Core	TACHYON-100G - 5.0 mil H/1		16x18	2	
Prepreg	TACHYON-100G - 1080	72%	16x18	2	
Prepreg	TACHYON-100G - 3313	60%	16x18	2	

Drill Progs	Technology	Depth
Drill1	Mechanical	58.92
DRILL 1-4	Mechanical	17.76
DRILL 9-12	Mechanical	17.76

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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.