

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

Job number:	JC8932	Material:	Megtron 6, PCL-370HF	Stackup Report	Report v1.38 External	G O R I L L A C I R C U I T S I N C .	
Part number:	TSW14J57	Impedance:	Yes				
Customer:	TEXAS INSTRUMENTS	Date:	26-Oct-2015				
Panel size:	18X24	Created by:	JACKIE				

Layer	Type	Cu Weight	Cu %	Material Description	Via Structure	Segment	Glass Style	Material Family	Dielectric constant	Copper Plating Thickness [mil]	Thickness after lamination [mil]
Soldermask											0.80
L1	Signal	H	50	Press thk = 3.32 mil		Foil	3313(54)	Megtron 6	3.50	1.70	2.30 *
L2	Plane	H	70	4.0 mil H/H		Prepreg	1080(63)	Megtron 6	3.50		3.32
L3	Signal	H	50	Press thk = 5.52 mil		Core	1080(63)	Megtron 6	3.50		0.60
											4.00
L4	Plane	H	70	4.0 mil H/H		Prepreg	1080(63)	Megtron 6	3.50		0.60
L5	Signal	H	50	Press thk = 5.52 mil		Core	1080(63)	Megtron 6	3.50		5.52
											0.60
L6	Plane	H	70	4.0 mil H/H		Prepreg	1080(63)	Megtron 6	3.50		0.60
L7	Signal	H	50	Press thk = 5.52 mil		Core	1080(63)	Megtron 6	3.50		4.00
											0.60
L8	Plane	H	70	4.0 mil H/H		Prepreg	1080(63)	Megtron 6	3.50		5.52
L9	Plane	H	70	Press thk = 5.44 mil		Core	1080(65)	PCL-370HR	3.90		0.60
											4.00
L10	Plane	H	70	4.0 mil H/H		Prepreg	1080(65)	PCL-370HR	3.90		0.60
L11	Plane	H	70	Press thk = 5.52 mil		Core	1080(63)	Megtron 6	3.50		5.52
											0.60
L12	Signal	H	50	4.0 mil H/H		Prepreg	1080(63)	Megtron 6	3.50		4.00
L13	Plane	H	70	Press thk = 5.52 mil		Core	1080(63)	Megtron 6	3.50		0.60
											5.52
L14	Signal	H	50	4.0 mil H/H		Prepreg	1080(63)	Megtron 6	3.50		0.60
L15	Plane	H	70	Press thk = 3.32 mil		Core	3313(54)	Megtron 6	3.50		4.00
L16	Signal	H	50			Prepreg		Megtron 6	3.50	1.70	0.60
Soldermask						Foil					3.32
											2.30 *
											0.80

* Estimated Cu Plating for reference use only.

Specification (Over mask on plated copper):	mil
Overall Board Thickness:	82.00
Tolerance:	+8.2/-8.2
Min-Max Board Thickness:	73.8-90.2

Anticipated Board Thickness:	mil
After lamination:	77.28
Over mask on plated copper::	82.28

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	6.20	6.25	--	--	5.75	--	49.7
L1	100	10.0	10.0	Coated microstrip Diff	--	L2	4.00	4.25	6.00	--	3.75	6.25	101.2
L3	50	5.0	5.0	Single-Ended	L4	L2	4.70	5.50	--	--	5.00	--	50.1
L3	100	10.0	10.0	Differential	L4	L2	4.20	4.75	5.80	--	4.25	5.75	101.0
L5	50	5.0	5.0	Single-Ended	L6	L4	4.70	5.50	--	--	5.00	--	50.1
L5	100	10.0	10.0	Differential	L6	L4	4.20	4.75	5.80	--	4.25	5.75	101.0
L7	50	5.0	5.0	Single-Ended	L8	L6	4.70	5.50	--	--	5.00	--	50.1
L7	100	10.0	10.0	Differential	L8	L6	4.20	4.75	5.80	--	4.25	5.75	101.0
L12	50	5.0	5.0	Single-Ended	L11	L13	4.70	5.50	--	--	5.00	--	50.1
L12	100	10.0	10.0	Differential	L11	L13	4.20	4.75	5.80	--	4.25	5.75	101.0
L14	50	5.0	5.0	Single-Ended	L13	L15	4.70	5.50	--	--	5.00	--	50.1
L14	100	10.0	10.0	Differential	L13	L15	4.20	4.75	5.80	--	4.25	5.75	101.0
L16	50	5.0	5.0	Coated microstrip SE	--	L15	6.20	6.25	--	--	5.75	--	49.7
L16	100	10.0	10.0	Coated microstrip Diff	--	L15	4.00	4.25	6.00	--	3.75	6.25	101.2

Remarks:

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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		18x24	2	
Core	Megtron 6 - 4.0 mil H/H		18x24	5	
Prepreg	Megtron 6 - 1080	63%	18x24	10	
Prepreg	Megtron 6 - 3313	54%	18x24	2	
Core	PCL-370HR - 4.0 mil H/H		18x24	2	
Prepreg	PCL-370HR - 1080	65%	18x24	2	

Drill Progs	Technology	Depth
Drill1	Mechanical	77.28

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.