

Drawing#

Program:

## **Impedance Model**

(Preliminary)

TTM CONFIDENTIAL

Date: 8/3/2016

Engineering Dept. Contact: CF: 715-720-5000

SA: 714-241-0303

TTM Engineer: Louie Yeh (714) 327-3077

TTM Tool #

Core Material: Nelco N4000-13EP SI

Prepreg Material: Nelco N4000-13EP SI

Waivers - Customer approval of stackup includes approval of:

Part Number/Rev: 14 LAYERS\_CS Rev. 1

1- Dielectrics have been adjusted to achieve overall board thickness.

Customer: SIGNAL LABORATORIES

Notes / Comments:

1- Please include approved stackup with final data set.

TTM Engineering notes:

Stack up generated ref to customer's email (no drawing or data provided).

		1	ial Mode	Different	Ι			L		Model	Ended l	Single		L		Starting			
Calc.	Ref.	Fin.	Fin.	A/W	A/W	Org.	Org.	Y R	Calc.	Ref.	Fin.	A/W	Org.	Y R	Nominal Thick.	Dielectric			
Imp.	Plane	space	L/W	space	L/W	space	L/W	#	Imp.	Plane	L/W	L/W	L/W	#	THICK.				
100	2	7	4			7	4	1	50	2	5		5	1	2.25		Н	1/2 oz + Plating	S
									40	2	8		8	1					_
															3.00			1080	
															0.65		Н		P
															3.00			Core	
100	2,4	7	4			7	4	3	50	2,4	4.1		4.1	3	0.65		Н		s
									40	2,4	6		6	3	4.40			2116	
															0.65		H		P
															3.00	Ī		Core	
100	4,6	7	4		-	7	4	5	50	4,6	4.1		4.1	5	0.65		Н		s =
									40	4,6	6		6	5	4.40			2116	
															0.65		Н		P
															3.00			Core	
															0.65		Н		P
															6.35			2x1080HR	
100	7,9	6.6	4.4			6.6	4.4	8	50	7,9	4.7		4.7	8	0.65		Н		S
									40	7,9	7		7	8	3.00			Core	
															0.65		Н		P
															4.40			2116	
100	9,11	7	4			7	4	10	50	9,11	4.1		4.1	10	0.65		Н		S
									40	9,11	6		6	10	3.00			Core	
															0.65		Н		Р
														$\prod$	4.40			2116	
100	11,13	7	4			7	4	12	50	11,13	4.1		4.1	12	0.65		Н		s _
									40	11,13	6		6	12	3.00			Core	
															0.65		Н		P
														$\prod$	3.00			1080	
									40	13	8		8	14			L		
100	13	7	4			7	4	14	50	13	5	6	5	14	2.25		Н	1/2 oz + Plating	S
				Mils					Units		der mask	ding sol	not inclu	1	60.25	er plating	ss After	Thickne	
+/-10%		(DIFF)	+/- 10%		(SE)		lerance	nce T	Impeda		All	er er	O		62+/-10%	Thickness	arget T	Т	