



CNPEM
Brazilian Center for Research
in Energy and Materials



RFFE_v2_AC

RFFE_v2_BD

Manufacturing specifications

Centro Nacional de Pesquisa em Energia e Materiais (CNPEM)

Laboratório Nacional de Luz Síncrotron (LNLS)

Rua Giuseppe Maximo Scolfaro, 10000, Polo II de Alta Tecnologia

Campinas, São Paulo, Brazil

CEP 13083-970 – Caixa Postal 6192

November 2015

Brazilian Synchrotron Light Laboratory

Beam Diagnostics Group (DIG)

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PCB Fabrication Specification

Design references			
Name	RFFE_V2_AC and RFFE_V2_BD		Date: 25/11/2014
File name			
Designer	Rafael Antonio Baron	Fernando Sant'anna	
E-mail		fernando.santanna@lnls.br	
Fone		+55 19 3512-5071	
Cel		+55 16 99206-8595	

Mechanical characteristics	
External size (mm)	50 mm x 105 mm
Thickness (mm)	1.6 mm
Multilayers	4 layers
Min track width (mm/mils)	
Min Hole size (mm/mils)	
Laminate	RO4350 on top layer
Pre-preg	FR-4
Finish Copper	
External layers (μm)	35 μm
Holes walls (μm)	25 μm
Internal Layers-Planes (μm)	35 μm
Internal Layers-Signals (μm)	35 μm
Board finishing requirements	

Silkscreen on top layer (color)	White
Silkscreen on bottom layer (color)	White
Board color	Red
Surface Finishing	ENIG – Electroless Nickel / Immersion Gold according to IPC-4552
Thickness	Ni: 3 µm min, 6 µm máx. Au: 0.05 µm min, 0.125 µm máx

Additional Information

Impedance test	No
Packaging requirements	No
Documentation to be delivered	No
Additional control quality requirements	No

Board Stackup Information

Layer 1	RF signals	Laminate/pre-preg	Thickness (mm/mils)
Layer 2	RF Ground Plane	RO4350	20 mils
Layer 3	Digital signaling	FR4	20 mils
Layer 4	Digital Ground plane	FR4	20 mils

