

LAYER STACK

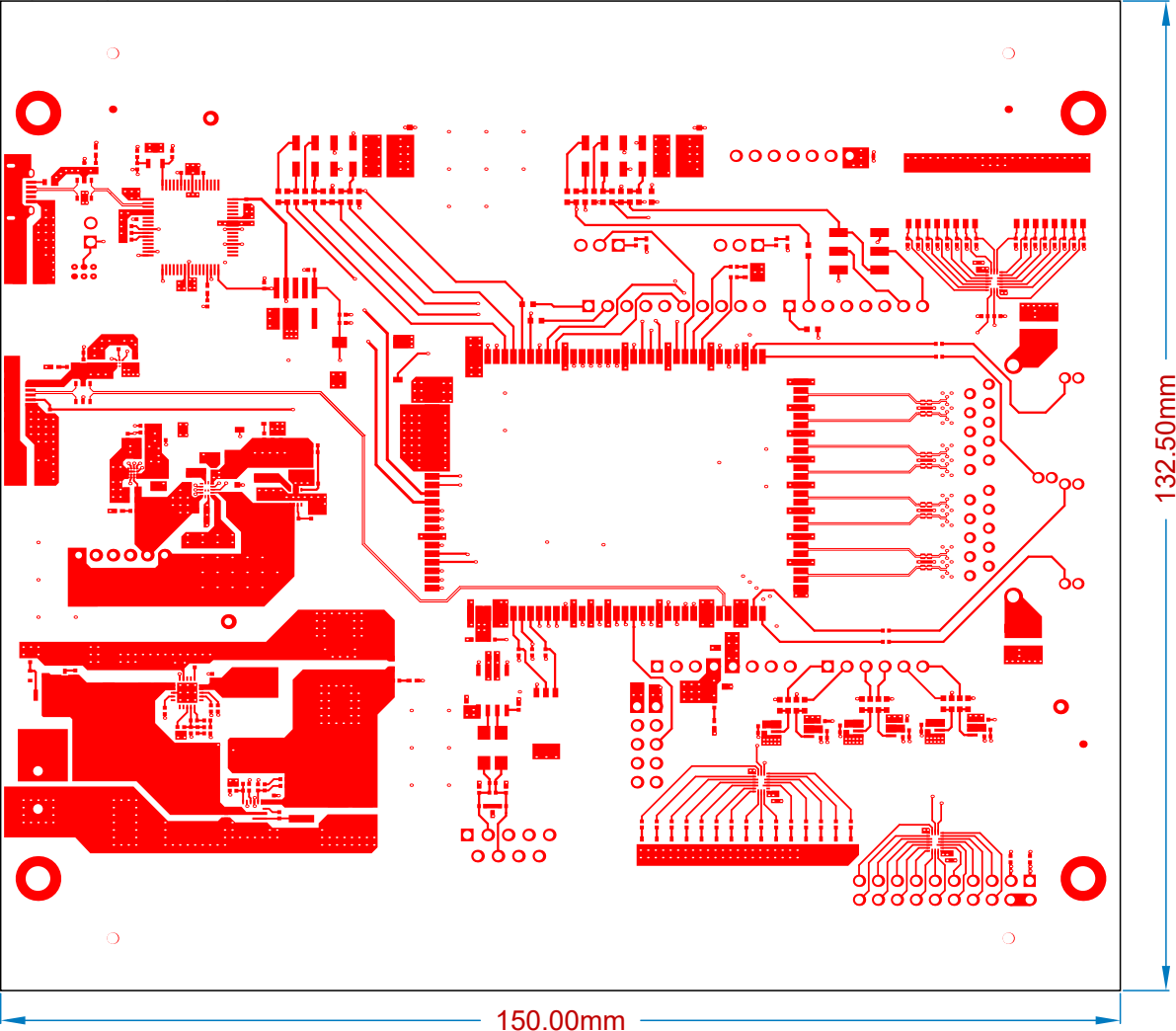
Layer Stack Legend



Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Overlay			Legend	GTO
Surface Material	Top Mask	0.02mm	Solder Resist	Solder Mask	GTS
Copper	Signal1	0.04mm		Signal	GTL
Prepreg		0.10mm	2313	Dielectric	
Copper	GND1	0.02mm		Internal Plane	GP1
Core		0.57mm	FR-4	Dielectric	
Copper	Signal2	0.02mm		Signal	G1
Prepreg		0.13mm	2116	Dielectric	
Copper	PWR	0.02mm		Internal Plane	GP2
Core		0.57mm	FR-4	Dielectric	
Copper	GND2	0.02mm		Internal Plane	GP3
Prepreg		0.10mm	2313	Dielectric	
Copper	Signal3	0.04mm		Signal	GBL
Surface Material	Bottom Mask	0.02mm	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO

Total thickness: 1.63mm

Signal1 (Scale 1:1)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
☆	1005	0.20mm	Plated	
✕	2	0.50mm	Plated	
c	2	0.55mm	Plated	
✕	26	0.90mm	Plated	
▽	3	1.00mm	Non-Plated	
▣	3	1.00mm	Plated	
◎	8	1.02mm	Plated	
⊕	78	1.10mm	Plated	
□	8	1.15mm	Plated	
⊕	2	1.30mm	Plated	
K	4	1.50mm	Non-Plated	
▽	2	1.60mm	Plated	
○	2	3.10mm	Non-Plated	
✱	2	3.25mm	Non-Plated	
F	4	3.30mm	Plated	
	1151 Total			

TRANSMISSION LINE STRUCTURE

Transmission Line Structure Table

Impedance Id	Transmission Line	Target Impedance	Calculated Impedance	Trace layer	Wide Trace Width	Narrow Trace Width	Gap	Reference layers	Substack	Clearance	Target Tolerance
1	Edge-Coupled Coated Microstrip	100	101.78	Signal1	0.100mm	0.100mm	0.127mm	GND1	Board Layer Stack	0.127mm	10%
2	Edge-Coupled Coated Microstrip	90	89.67	Signal1	0.140mm	0.140mm	0.127mm	GND1	Board Layer Stack	0.127mm	10%
3	Edge-Coupled Offset Stripline	100	99.82	Signal2	0.088mm	0.088mm	0.127mm	GND1,PWR	Board Layer Stack	0.127mm	10%
4	Edge-Coupled Offset Stripline	90	89.77	Signal2	0.120mm	0.120mm	0.127mm	GND1,PWR	Board Layer Stack	0.127mm	10%
5	Edge-Coupled Coated Microstrip	100	101.78	Signal3	0.100mm	0.100mm	0.127mm	GND2	Board Layer Stack	0.127mm	10%
6	Edge-Coupled Coated Microstrip	90	89.67	Signal3	0.140mm	0.140mm	0.127mm	GND2	Board Layer Stack	0.127mm	10%

FABRICATION NOTES

Design Features

Number of Layers: 6
Smallest Via Drill/Pad: 0.20mm (See drill table)
Buried Via's: NO
Blind Via's: NO
Via Covering: Epoxy Filled & Capped
Impedance Control: YES
Gold Fingers: NO
Castellated Holes: NO
BGA: NO

Silkscreen Color (Top & Bottom): WHITE
Soldermask Color (Top & Bottom):
BLUE
Matte Finish

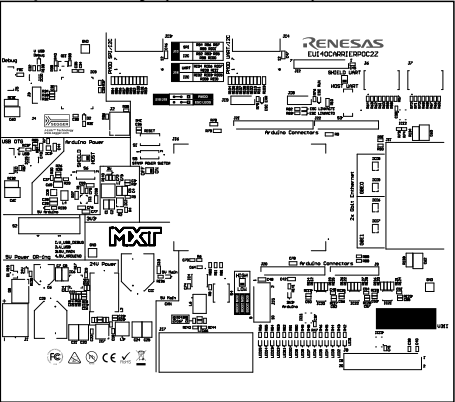
Materials and Ratings

Core Material: FR4 Tg (C min): 170 Td (C min): 330
PAD Finish: ENIG
Surface finish: Immersion Gold 2u
Finished Board Thickness: 1.63mm (See Chart)
Finished outer layer Cu min thickness: 1oz (See Chart)
Copper thickness - inner layers: 1/2oz (See Chart)
ROHS Required: YES
UL94V Rating: UL94V-0
IPC-A-6011/IPC-A-6012 Class: 2 Inspect per IPC-A-600

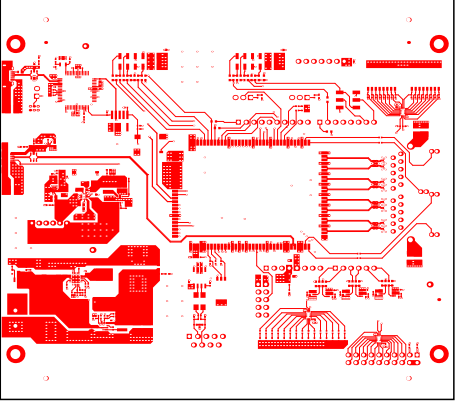
Board Tests

100% test w/netlist IPC356
Microsection Inspection Report
Controlled impedance – TDR - report

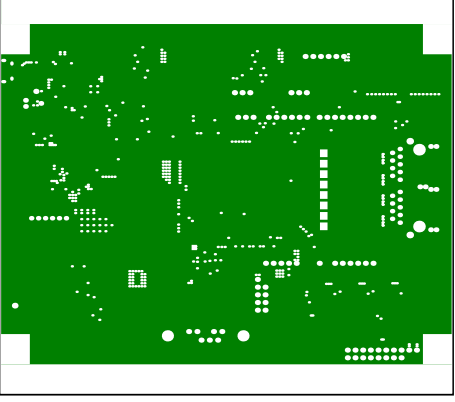
Top Overlay (Scale 1:2.5)



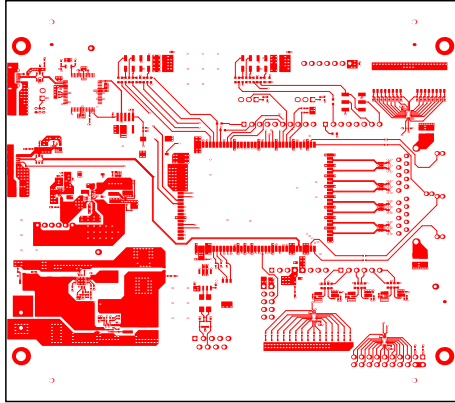
Signal1 (Scale 1:2.5)



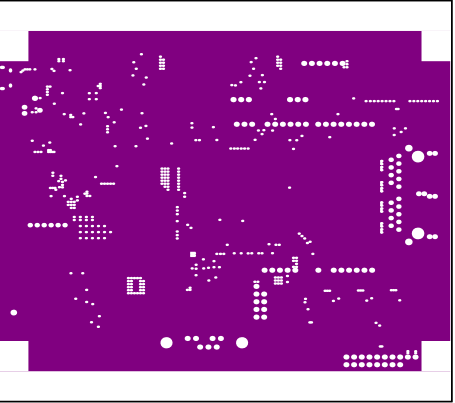
GND1 (Scale 1:2.5)



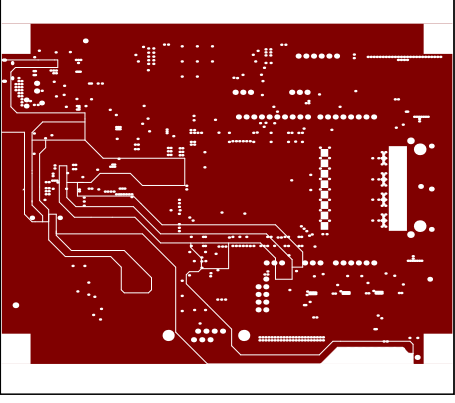
Signal1 (Scale 1:2.5)



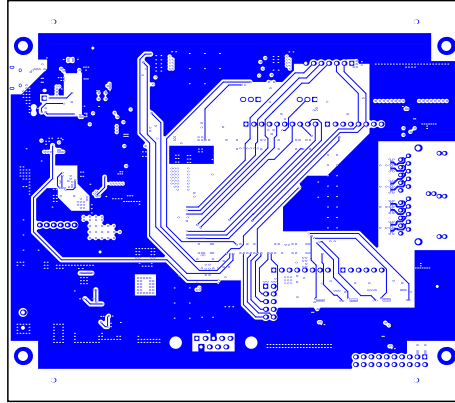
GND2 (Scale 1:2.5)



PWR (Scale 1:2.5)



Signal3 (Scale 1:2.5)



Bottom Overlay (Scale 1:2.5)

