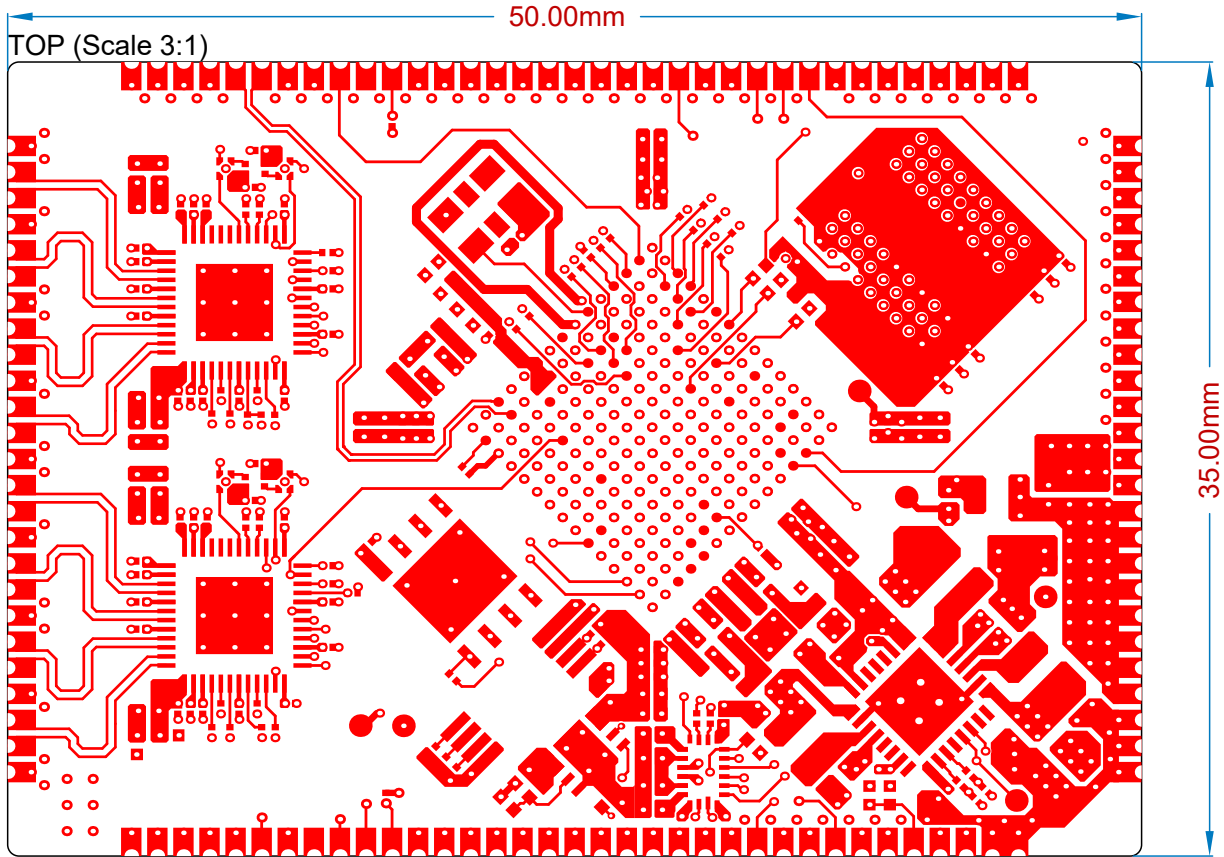
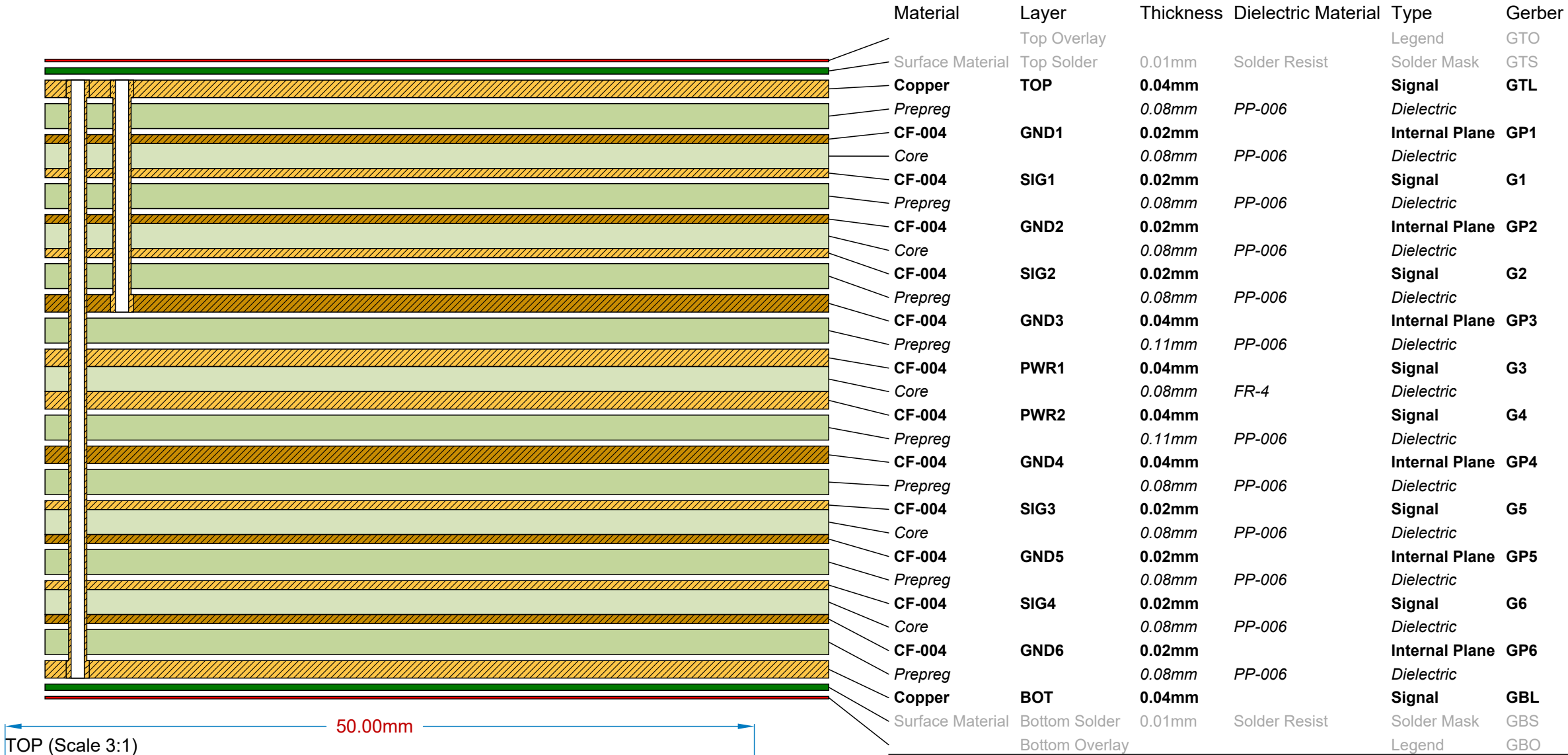


LAYER STACK

Layer Stack Legend



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
□	2	0.15mm	Plated	
☆	877	0.20mm	Plated	
A	4	0.30mm	Plated	
E	120	0.60mm	Plated	
	1003 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	Coated Microstrip	50	51.21	TOP	0.123mm	0.098mm		GND1	Board Layer Stack	0.127mm	10%
2	Edge-Coupled Coated Microstrip	90	93.15	TOP	0.120mm	0.095mm	0.140mm	GND1	Board Layer Stack	0.127mm	10%
3	Edge-Coupled Coated Microstrip	100	100.39	TOP	0.118mm	0.086mm	0.250mm	GND1	Board Layer Stack	0.127mm	10%
4	Coated Coplanar Waveguide With Ground	50	50.01	TOP	0.112mm	0.112mm		GND1	Board Layer Stack	0.127mm	10%
5	Diff Coated Coplanar Waveguide With Ground	100	100.34	TOP	0.118mm	0.086mm	0.250mm	GND1	Board Layer Stack	0.500mm	10%
6	Offset Stripline	50	51.27	SIG1	0.061mm	0.036mm		GND1,GND2	Board Layer Stack	0.127mm	10%
7	Edge-Coupled Offset Stripline	90	92.46	SIG1	0.061mm	0.036mm	0.080mm	GND1,GND2	Board Layer Stack	0.127mm	10%
8	Edge-Coupled Offset Stripline	100	101.04	SIG1	0.061mm	0.036mm	0.180mm	GND1,GND2	Board Layer Stack	0.127mm	10%
9	Offset Coplanar Waveguide	50	51.27	SIG1	0.061mm	0.036mm		GND1,GND2	Board Layer Stack	0.500mm	10%
10	Offset Stripline	50	51.27	SIG2	0.061mm	0.036mm		GND2,GND3	Board Layer Stack	0.127mm	10%
11	Edge-Coupled Offset Stripline	90	92.46	SIG2	0.061mm	0.036mm	0.080mm	GND2,GND3	Board Layer Stack	0.127mm	10%
12	Edge-Coupled Offset Stripline	100	102.15	SIG2	0.061mm	0.036mm	0.250mm	GND2,GND3	Board Layer Stack	0.127mm	10%
13	Offset Coplanar Waveguide	50	50.00	SIG2	0.054mm	0.054mm		GND2,GND3	Board Layer Stack	0.127mm	10%
14	Offset Coplanar Waveguide	50	49.98	PWR1	0.047mm	0.047mm		GND3,PWR2	Board Layer Stack	0.127mm	10%
15	Offset Coplanar Waveguide	50	49.98	PWR2	0.047mm	0.047mm		PWR1,GND4	Board Layer Stack	0.127mm	10%
16	Offset Stripline	50	51.27	SIG3	0.061mm	0.036mm		GND4,GND5	Board Layer Stack	0.127mm	10%
17	Edge-Coupled Offset Stripline	90	92.46	SIG3	0.061mm	0.036mm	0.080mm	GND4,GND5	Board Layer Stack	0.127mm	10%
18	Edge-Coupled Offset Stripline	100	102.15	SIG3	0.061mm	0.036mm	0.250mm	GND4,GND5	Board Layer Stack	0.127mm	10%
19	Offset Coplanar Waveguide	50	50.00	SIG3	0.054mm	0.054mm		GND4,GND5	Board Layer Stack	0.127mm	10%
20	Offset Stripline	50	51.27	SIG4	0.061mm	0.036mm		GND5,GND6	Board Layer Stack	0.127mm	10%
21	Edge-Coupled Offset Stripline	90	92.46	SIG4	0.061mm	0.036mm	0.080mm	GND5,GND6	Board Layer Stack	0.127mm	10%
22	Edge-Coupled Offset Stripline	100	101.04	SIG4	0.061mm	0.036mm	0.180mm	GND5,GND6	Board Layer Stack	0.127mm	10%
23	Offset Coplanar Waveguide	50	51.27	SIG4	0.061mm	0.036mm		GND5,GND6	Board Layer Stack	0.500mm	10%
24	Coated Microstrip	50	51.21	BOT	0.123mm	0.098mm		GND6	Board Layer Stack	0.127mm	10%
25	Edge-Coupled Coated Microstrip	90	93.15	BOT	0.120mm	0.095mm	0.140mm	GND6	Board Layer Stack	0.127mm	10%
26	Edge-Coupled Coated Microstrip	100	100.39	BOT	0.118mm	0.086mm	0.250mm	GND6	Board Layer Stack	0.127mm	10%
27	Coated Coplanar Waveguide With Ground	50	50.01	BOT	0.112mm	0.112mm		GND6	Board Layer Stack	0.127mm	10%
28	Diff Coated Coplanar Waveguide With Ground	100	100.34	BOT	0.118mm	0.086mm	0.250mm	GND6	Board Layer Stack	0.500mm	10%

FABRICATION NOTES

Design Features

Number of Layers: 14
Smallest Via Drill/Pad: 0.15mm (See drill table)
Buried Via's: NO
Blind Via's: YES (L1 - L6, consult drill files)
Via Covering: Epoxy Filled & Capped
Impedance Control: YES
Gold Fingers: NO
Castellated Holes: YES (0.6mm half-hole, plated)
BGA: YES

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

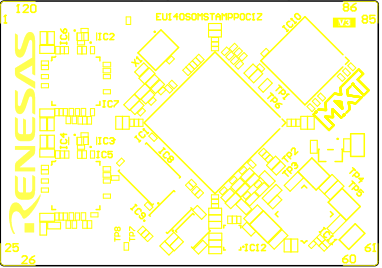
Materials and Ratings

Core Material: FR4 Tg (C min): 170 Td (C min): 330
PAD Finish: ENIG
Surface finish: Immersion Gold 2u
Finished Board Thickness: 1.42mm (See Chart)
Finished outer layer Cu min thickness: 1oz (See Chart)
Copper thickness - inner layers: 1oz (See Chart)
ROHS Required: YES
UL94V Rating: UL94V-0
IPC-A-6011/IPC-A-6012 Class: 2 Inspect per IPC-A-600

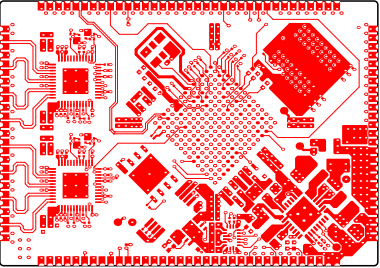
Board Tests

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

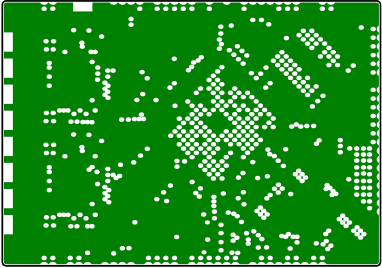
Top Overlay (Scale 1:1)



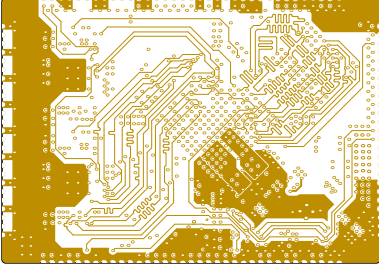
TOP (Scale 1:1)



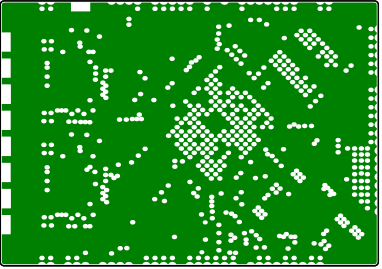
GND1 (Scale 1:1)



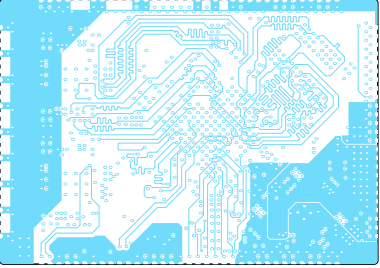
SIG1 (Scale 1:1)



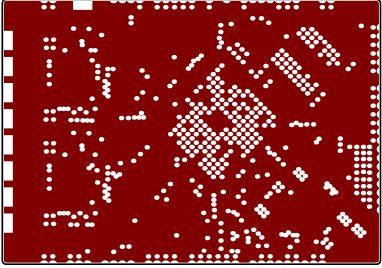
GND2 (Scale 1:1)



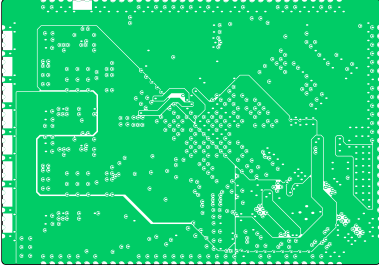
SIG2 (Scale 1:1)



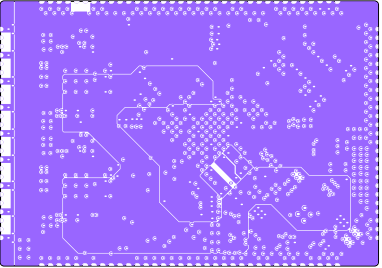
GND3 (Scale 1:1)



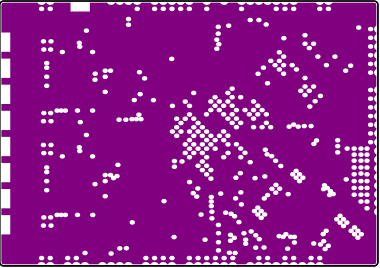
PWR1 (Scale 1:1)



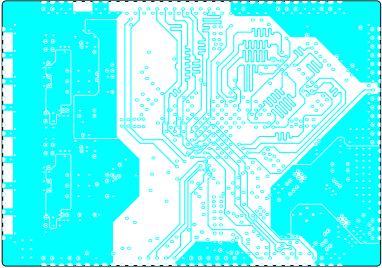
PWR2 (Scale 1:1)



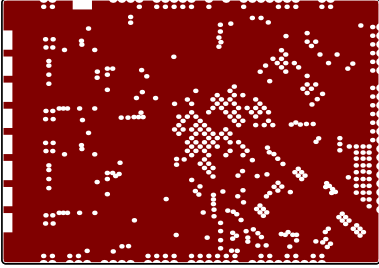
GND4 (Scale 1:1)



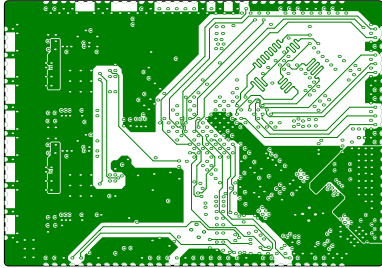
SIG3 (Scale 1:1)



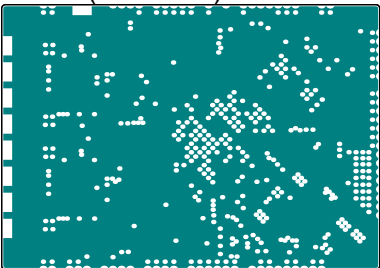
GND5 (Scale 1:1)



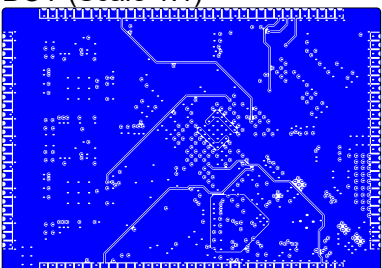
SIG4 (Scale 1:1)



GND6 (Scale 1:1)



BOT (Scale 1:1)



Bottom Overlay (Scale 1:1)

