



RF / Microwave PCB

ENABLING  
A CONNECTED  
FUTURE

[www.ascentcircuits.com](http://www.ascentcircuits.com)

## CAPABILITIES - PCB Manufacturing

- Premium and Specialised manufacturers in Single Sided, Double Sided, Multilayer, RF/Microwave, Flexible, IMS/ MC, Aluminum Flex and Speciality PCBs.
- We confirm our manufacturing capability based upon final PCB designs & requirements.
- Acceptance of PCBs designs is subject to MRC and Feasibility checks.
- All our PCBs comply with IPC standards unless specified otherwise.
- We envision manufacturing the PCBs with **FUTURISTIC** parameters mentioned in the table that are currently indicative only.
- The PCBs with **STRATEGIC** capabilities mentioned in the table below are provided upon special requests.

Product Features	Variant	Standard	Strategic	Futuristic
Max. Layer Count		4	As per design	As per design
Min. Board Thickness (Finished)		0.8 mm	0.4 mm	0.4 mm
Max. Board Thickness (Finished)		As per design	As per design	As per design
Min. Core Thickness		0.4 mm	As per design	As per design
Min. Dielectric		As per design	As per design	As per design
Min. Starting Copper Foil Thickness		17.5 micron	As per design	As per design
Max. Finished Copper Thickness (O/L)		35 microns + plating	As per design	As per design
Max. Finished Copper Thickness (I/L)		35 microns	As per design	As per design
Min. Deliverable PCB Size		As per design	As per design	As per design
Max. Deliverable PCB Size		400 x 300 mm	As per design*	As per design *
Smallest Mech Drill Diameter		0.35 mm	As per design	As per design
PTH & NPTH Slots		Yes		
Min. Finished Hole Size		0.30 mm	As per design	As per design
Max. Thru Hole Aspect Ratio		6:1	As per design	As per design
Min. Line Width (trace) and Spacing		As per design	As per design	As per design
Process Pad Diameter for minimum Annular ring of 0.05mm		Drill dia + 0.2 mm	Drill dia + 0.2 mm	Drill dia + 0.2 mm
Controlled Impedance Tolerance	Plus or minus	10%	5%	5%
Solder Mask Registration		4 mils	3 mils*	2 mils*
Solder Mask Min. Dam Size		6 mils	4 mils*	3 mils*
Min. Diameter Rout Cutter Available		1.6 mm	1.0 mm	0.8 mm
Routed Part Size Tolerance (Depends on PCB size)		0.2 mm	0.15 mm	0.1 mm

T&C Apply:

Products with asterisk(\*) are only available on special request

Product Features	Variant	Standard	Strategic	Futuristic
Thickness Tolerance	Plus or minus	10% (+/-)	10%	10%
<b>Surface Finishes</b>				
ENIG (Electroless Nickel / Immersion Gold)			Yes	
Immersion Silver		No	Yes	
Immersion Tin			Yes	
Electrolytic Tin			Yes	
Electrolytic Nickel			Yes	
Electrolytic Hard Gold			Yes	
<b>Solder Masks</b>				
Semi - Gloss Green UVSM			Yes	
Semi - Gloss Green PISM			Yes	
<b>Legend</b>				
Black			Yes	
Green			Yes	
White			Yes	
Yellow		No	Yes	
<b>Fab</b>				
Routed Array			Yes	
Profile Punching			Yes	
<b>Electrical Test</b>				
10 Volt			Yes	
40 Volt			Yes	
250 Volt			Yes	
Max.Test Area	FPT	610 x 510mm	--	
	Bed of nails	16" x 12.8"	--	
Min. pitch of test pads	FPT	0.25 mm	0.15 mm	--
	Bed of nails	0.5 mm	--	
Min. test pad size	FPT	0.2 x 0.2 mm	0.1 x 0.1 mm	--
	Bed of nails	0.3 x 0.3 mm	--	
Test conditions	FPT	10 ohms, 10 Meg Ohms	5 ohms, 12.7 Meg Ohms	--
	Bed of nails	20 ohms, 10 Meg Ohms	--	

Product Features	Variant	Standard	Strategic	Futuristic
<b>Laminate Materials RF Boards</b>				
Arlon		Yes	Yes	Yes
Getek		Yes	Yes	Yes
Nelco		Yes	Yes	Yes
Neltec		Yes	Yes	Yes
Rogers - PTFE		Yes	Yes	Yes
RT Duroid		Yes	Yes	Yes
Taconic		Yes	Yes	Yes
FR4 (Tg 130, Tg 170) *		Yes	Yes	Yes
FR402*		Yes	Yes	Yes
PCL HR180 *		Yes	Yes	Yes
PCL HR370*		Yes	Yes	Yes
<b>Reports</b>				
Quality Conformance Inspection report			Yes	
Microsection			Yes	
Solderability			Yes	
XRF (X-ray Fluorescence)			Yes	
Ionic Contamination			Yes	
Time Domain Reflectometry test (TDR) for Controlled Impedance Boards			Yes	
FAI (First Article Inspection)			Yes	
PPAP Documents (on specific request)			Yes	
Certificate of Compliance (C of C)			Yes	
<b>UL</b>				
94VO (for a large selected families of products)			Yes	
<b>System Approvals</b>				
ISO 9001:2015			Yes	
IATF 16949:2016			Yes	
ISO 14001:2015			Yes	
BS/OHSAS 18001:2007			Yes	
German Automotive VDA 6.3		No		Yes

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