

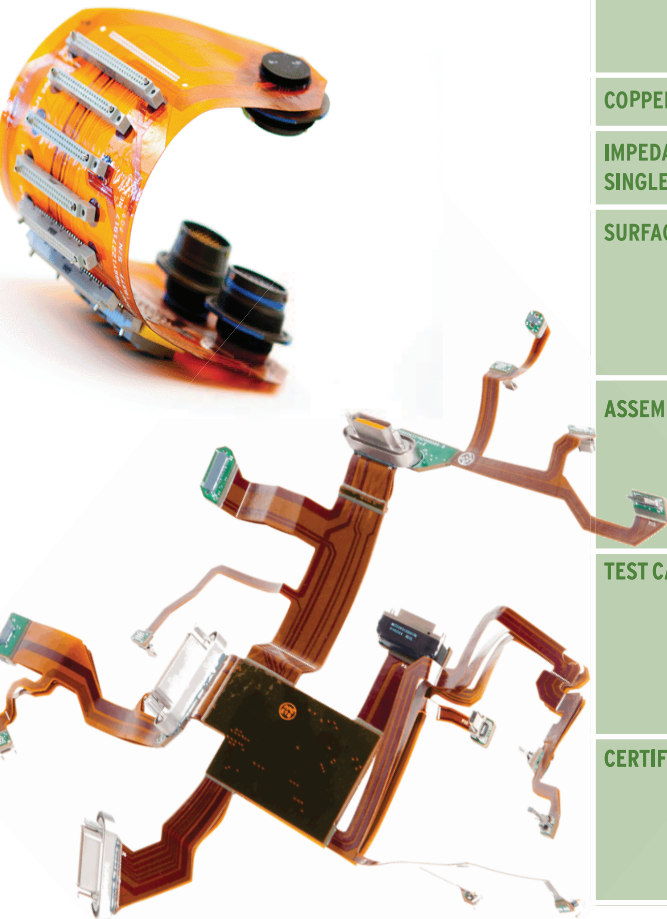
Flexible and Rigid-Flex Printed Circuit Board Capabilities



APC is one of the industry's leading manufacturers of flexible and rigid-flex circuit interconnects. For more than 30 years, APC has been providing quick turn prototypes from initial concept through full rate production with cutting-edge technologies including interconnects with blind and buried vias, microvias, and bookbinder.

Our assembly center of excellence, located in Nashua, New Hampshire provides competitive value added services including SMT, wave and manual through-hole assembly as well as many other electro-mechanical solutions.

APC works closely with our customers to understand their true system requirements. This allows us to deliver the most cost-effective interconnect solutions with up-front engineering and consistent manufacturing techniques. From functional testing and turn-key assembly, APC's commitment to our customers success is what sets us apart in the industry.



DESIGN FORMATS	DXF Gerber	IGES Pads	Design Services
PANEL SIZE	12" x 18" 18" x 24" 24" x 24" 24" x 36" 24" x 54"	Other sizes available Current Largest is 38" x 54" (2 layer)	
PANEL THICKNESS	.003" - .225"	BookBinders Up To 0.500"	
LAYER COUNT	1-30 +		
INTERCONNECT FORMATION TYPES	Dual Diameter Thru Hole Back Drill	Blind Filled Via's	Buried SMT
FINISHED HOLE SIZE	Compliant Pinned (rigid zone only) Via (A/R dependent) Buried Vias Microvias (up to 3 electrical layers)	0.014" (0.373mm) 0.008" (0.203mm) 0.006" (0.152mm) 0.004" - .006" (0.101mm)	
BLIND VIA ASPECT RATIO	1.25:1		
INTERNAL FEATURES (COPPER WEIGHT DEPENDENT)	Trace Spacing	0.003" (0.0762mm) 0.003" (0.0762mm)	
MATERIALS	Polyimide - LF Polyimide - FR Polyimide - AP Polyimide - GI Polyimide - TK	LCP Silver Epoxy Shielding Copper Epoxy Shielding Soldermask FR-4/ -24, 26 and 28	
COPPER PROCESSING	1/4 oz. - .032"		
IMPEDANCE SINGLE & DIFFERENTIAL	± 10% ± 7%		
SURFACE FINISHES	Electrolytic Ni/Au (Hard & Soft) HASL Immersion Tin Reflowed Tin/Lead	ENIG ENIPIG Immersion Silver Bright Tin OSP	
ASSEMBLY CAPABILITIES	Full Turn-Key Thru-Hole - Wave & Manual SMT - Pick & Place Wire-Bond Crimp	BGA Conformal Coating Glop To RoHS Compliance	
TEST CAPABILITIES	Impedance Testing Hi-Pot Up to 5,000 VDC 2,000 + Points Per Circuit Insulation Resistance up to 1,000 VDC Four Wire Kelvin .001Ω to 1Ω	Bed of Nails Flying Probe Flex Cycling Environmental Functional Test	
CERTIFICATIONS	IPC-6013 Class I, II, and III; Types 1-5 Mil-P-50884 Types 1-5 ITAR Registered J-STD	ICP-610 UL94VO Mil-PRF-31032/1b/2a/3/4 AS9100-B / ISO 9001:2008	