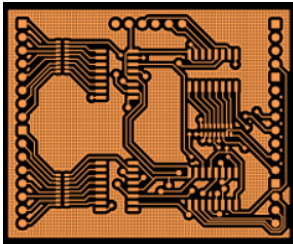


TURNKEY

Flex, Rigid Flex, and PCB Assemblies

Flex and rigid board specification standards



SPECIFICATION STANDARDS

The following tables describe, in brief, Glenair flex and rigid flex manufacturing formats and specifications. Glenair recommends commercial customers understand and adhere to IPC-6012/6013 specification standards which are fully supported by Glenair. Military customers may alternatively cite specifications IAW MIL-PRF-31032.

* Information below is based on the most common materials and physical property requirements. Please consult the factory for alternatives

Flex Assemblies

Design Formats	PADS • PADS PRO • Pro E / Creo • SolidWorks • Autodesk Inventor • CAM 350 • Altium • Valor • POLAR • XPedition
Manufacturing Formats	DXF • Gerber • ODB++ • IPC 2581
Layer Count	Max typ. up to 8
Termination	Thru hole • Reverse bare • Floating fingers / Sculpted circuits • ZIF Termination
Conductor Width/Space	Lines: .004" • Spacing: .004"
Bend Radius (military)	Single Metal Layer: 4–6X overall flex thickness • Double Metal Layers: 6–10X overall flex thickness • Multi Layer Metal: 12–15X overall flex thickness
Materials / Tg	Substrate: DuPont™ Kapton® polyimide flex adhesive and adhesiveless -60°C to 125°C Cover layer: DuPont™ Kapton® Stiffener: FR4 or DuPont™ Kapton® (metal stiffeners available upon request) Conductor: Copper, Aluminum, SS, Constantan High-temperature materials available
Surface Finish	ENIG • HASL • Immersion Tin and Silver • Soft and Hard Gold
Specs and Quality Management	IPC-6013 Class I, II, III, types 1-3 • ISO 9001, AS 9100

Rigid Flex Assemblies

Design Formats	PADS • PADS PRO • Pro E / Creo • SolidWorks • Autodesk Inventor • CAM 350 • Altium • Valor • POLAR • XPedition
Manufacturing Formats	DXF • Gerber • ODB++ • IPC 2581
Max Panel Thickness	Range of thicknesses from .010" to as thick as .250"
Layer Count	20 +
Via Technology	Blind, buried • Thru hole • Filled (conductive and non-conductive)
Conductor Width/Space	Lines: .004" • Spacing: .004"
Materials / Tg	Substrate: FR4: 180° C
Surface Finish	ENIG • HASL • Immersion Tin and Silver • Soft and Hard Gold
Specs and Quality Management	IPC-6013 Class I, II, III, type 4 • ISO 9001, AS 9100

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