CAPABILITY STRUCTURE

Flexible Printed Circuit Manufacturing Capability

Public capability overview organized around construction, interfaces and project-specific DFM confirmation.

Capability note: This overview describes available design categories. Numeric feature limits are confirmed against the selected construction.

Product types Single-sided, double-sided, multilayer and rigid-flex constructions	Materials Flexible dielectric, copper, coverlay, adhesives and stiffeners
Interfaces Exposed pads, connectors, component areas and formed flex zones	Release basis Approved drawing, material set and manufacturing DFM

1. Manufacturing Capability Categories

Category	Project definition
Construction	Layer count, material family, copper type and finished stack-up
Circuit features	Trace, space, pad, via and finished-hole definition
Registration	Coverlay, stiffener, tooling holes and outline alignment
Mechanical	Outline process, bend zones, local reinforcement and formed geometry
Termination	Connector fingers, exposed pads, contacts and mating interfaces
Surface finish	Project-approved finish selected for assembly and contact use
Assembly	Optional components, stiffeners, shielding and support features
Test	Continuity, netlist, dimensional and project-specific functional checks

2. Capability Notes

- Feature limits vary with material, copper, layer count and panel design.
- Dynamic flex performance requires a defined bend profile and validation method.
- Finished dimensions and nominal material thickness must be identified separately.
- Advanced constructions are released only after project DFM and sample approval.

DFM AND RELEASE INPUTS

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DFM input	Required content
Stack-up	Layer order, materials, copper, coverlay, adhesive and total thickness
Geometry	Outline, holes, slots, critical dimensions, datums and tolerance scheme
Flex use	Static installation, occasional flex or repeated dynamic motion
Bend zones	Location, direction, formed shape, constraints and expected use profile
Termination	Mating connector, pad finish, stiffener and assembly orientation
Data	Artwork, drill/rout data, netlist, drawing and revision-controlled readme

3. Release Evidence

Review	Acceptance basis
Drawing review	All layers, notes and dimensions describe the same revision
Material review	Specified construction is available and compatible with the design
Feature review	Critical geometry is manufacturable in the selected stack-up
Interface review	Connector, stiffener and housing operate as one assembly
Test review	Electrical and mechanical acceptance evidence is defined

The approved project drawing and manufacturing review define the actual capability for each released FPC part number.

Submit bend, connector and enclosure information together so the flex transition can be reviewed as a complete mechanical interface.