Flexible Printed Circuit Board -

FPC presentation

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FPC application

With the increasing demand for consumer electronic devices, FPC becomes an efficient solution to meet smaller with more advanced function.

FPC is widely used in consumer and communication products such as:
- Mobile Phone
- Digital Camera
- HDD
- Plat Panel display
- Computer
- Navigation System

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Mobile phone used FPC

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HDD used FPC

Connection Parts (Weight-saving)

Read-write unit (Hyper Flexural Resistance)

Connection Cable unit (Thin)

Spindle Motor unit

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Product Type

- Single sided Flex
- Double sided Flex
- Multilayer Flex
- Single sided Flex
- Double sided Flex
- Multilayer Flex
- Rigid Flex

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## Production Capability

<table>
<thead>
<tr>
<th>num</th>
<th>Item</th>
<th>Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Number of layers</td>
<td>1-6</td>
</tr>
<tr>
<td>2</td>
<td>Maximum panel size</td>
<td>250mm × 500mm</td>
</tr>
<tr>
<td>3</td>
<td>Minimum flex thickness</td>
<td>0.075mm (0.003”)</td>
</tr>
<tr>
<td>4</td>
<td>Minimum drill hole size</td>
<td>0.2mm (0.008”)</td>
</tr>
<tr>
<td>5</td>
<td>Drill hole size tolerance</td>
<td>±0.025mm (±0.001”)</td>
</tr>
<tr>
<td>6</td>
<td>Hole wall thickness (Copper)</td>
<td>≥10um (≥0.004”)</td>
</tr>
<tr>
<td>7</td>
<td>Minimum line width / spacing (single-side)</td>
<td>0.05/0.05mm (0.002”/0.002”)</td>
</tr>
<tr>
<td>8</td>
<td>Minimum line width / spacing (double-side, multi-layer)</td>
<td>0.076/0.076mm (0.003”/0.003”)</td>
</tr>
<tr>
<td>9</td>
<td>Etching tolerance</td>
<td>±10%</td>
</tr>
<tr>
<td>10</td>
<td>Minimum punching hole size</td>
<td>Ø2.0mm (0.08”)</td>
</tr>
<tr>
<td>11</td>
<td>Maximum punching thickness</td>
<td>0.6mm (0.024”)</td>
</tr>
<tr>
<td>12</td>
<td>Minimum conductor spacing for screen printing</td>
<td>0.15mm (0.006”)</td>
</tr>
<tr>
<td>13</td>
<td>Nickel thickness</td>
<td>100um ~300um</td>
</tr>
<tr>
<td></td>
<td>Gold plating thickness</td>
<td>≥1um</td>
</tr>
<tr>
<td></td>
<td>Immersion gold Thickness</td>
<td>1um ~3um</td>
</tr>
<tr>
<td></td>
<td>Tin plated thickness</td>
<td>150um ~400um</td>
</tr>
<tr>
<td></td>
<td>HASL</td>
<td>1-15um</td>
</tr>
<tr>
<td></td>
<td>Immersion Tin</td>
<td>0.1-0.3 um</td>
</tr>
<tr>
<td>14</td>
<td>Smallest pad size for E-test</td>
<td>0.25mm (0.01”)</td>
</tr>
<tr>
<td>15</td>
<td>Minimum profile tolerance</td>
<td>Standard die : ±0.1mm(±0.004”)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Precision die : ±0.05mm(±0.002”)</td>
</tr>
</tbody>
</table>

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Factory Facilities

- Horizontal Black Hole Line
- Automatic Copper Plating Line
- Collimated Exposure Develop
- Etching and Stripping Machine
- Automatic Gold Plating Line
- Clean Line
- Tinning Machine
- Electrical Tester

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