ATLAS Pixel Detector Flexible Printed Circuit Board
Design ID number: AFH 4.1
MANUFACTURING SPECIFICATIONS

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Number of metal layers
2

Substrate material
25.4 µm (1 mil) Upilex
w/sputtered seed metal
(e.g., Cr or Ti) and
sputtered CU starter layer

Metalization:
Base metalization
14 µm (0.55 mil) Cu minimum

Barrier metal (where required)
2 µm , ± 0.5 µm (0.079 mil
±0.020 mil) Ni

Au plating (compatible with ultrasonic Al wire bonding):
0.2 µm (0.0079 mil) maximum

Top to bottom metal registration tolerance
No via hole breakout of cover pads

Cover layer (solder mask) top & bottom
25.4 µm (1 mil) Pyralux PC 1010

Required cover layer placement accuracy:
Bottom
± 125 µm (4.92 mil)

Top
± 125 µm (4.92 mil)

Substrate size: 86.6 mm x 19.6 mm (3.409 in. x 0.7717 in.)