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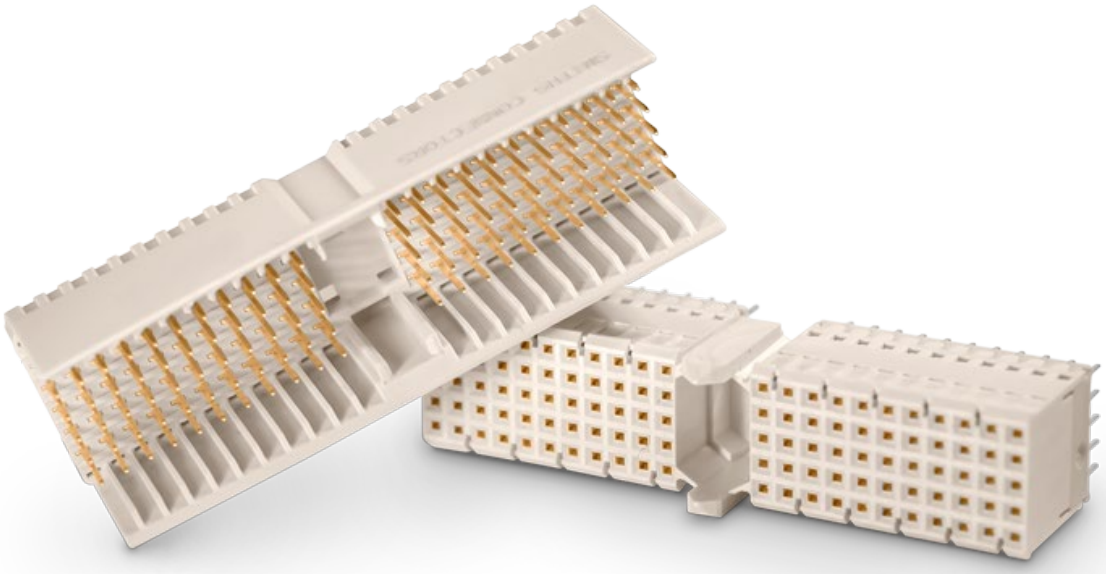
Application Guide

SpaceNXT™ Aurora Series

Revision B

20/11/2018



Product Offering

Part Number	Gender	Style	Type	Contacts	Shielded	Peg
K3SA110FS0P14301	Female	Straight	A	110	No	No
K3SA110FR0P14301	Female	Right Angle	A	110	No	No
K3SA110MS0P1230	Male	Straight	A	110	No	No
K3SA110MS1P1230	Male	Straight	A	110	No	Yes
K3SB125FS0P14301	Female	Straight	B	125	No	No
K3SB125FR0P1430	Female	Right Angle	B	125	No	No
K3SB125MS0P1230	Male	Straight	B	125	No	No
K3SC055FS0P1430	Female	Straight	C	55	No	No
K3SC055FR0P1430	Female	Right Angle	C	55	No	No
K3SC055MS0P1230	Male	Straight	C	55	No	No
K3SC055MS1P1230	Male	Straight	C	55	No	Yes

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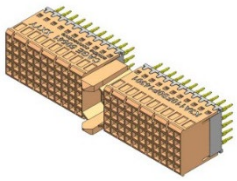

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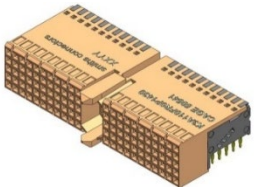

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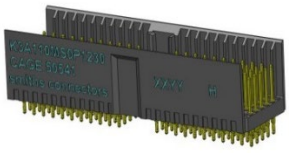

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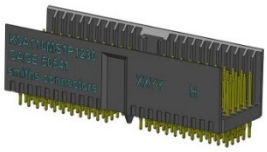

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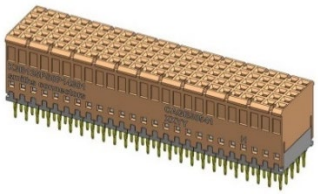

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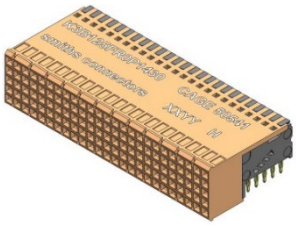

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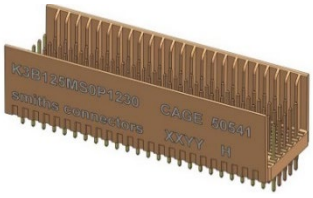

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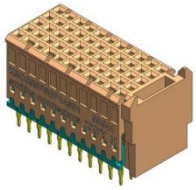

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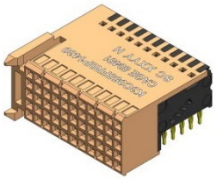

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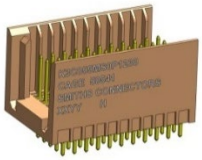

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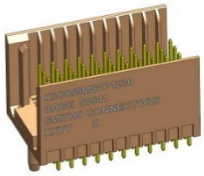


Installation Tooling

The SpaceNXT™ Aurora 2 mm hard metric connector system is compatible with industry standard 2 mm connector application tooling. Smiths Connectors also offers the following application tooling:

Tool Part Number	Compatible Aurora Part Numbers	Description
T3160	K3SA110FS0P14301	Aurora 110-Way, Female, Straight Application Tool
T3161	K3SA110FR0P1430	Aurora 110-Way, Female, Right Angle Application Tool
T3162	K3SA110MS0P1230	Aurora 110-Way, Male, Straight Application Tool
T3163	K3SB125MS0P1230	Aurora 125-Way, Male, Straight Application Tool
T3164	K3SC055FS0P14301	Aurora 55-Way, Female, Straight Application Tool
T3165	K3SC055FR0P1430	Aurora 55-Way, Female, Right Angle Application Tool
T3166	K3SC055MS0P1230	Aurora 55-Way, Male, Straight Application Tool
T3167	K3SB125FS0P1430	Aurora 125-Way, Female, Straight Application Tool
T3168	K3SB125FR0P1430	Aurora 125-Way, Female, Right Angle Application Tool

Installation Procedure

Caution: Please Wear Safety Glasses

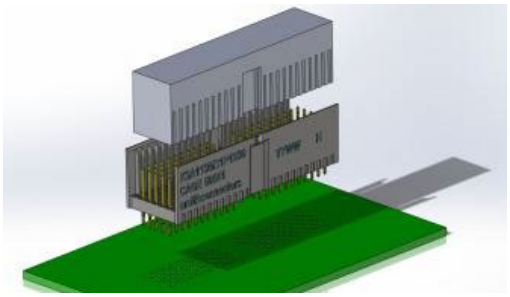
Requirements for Application Equipment

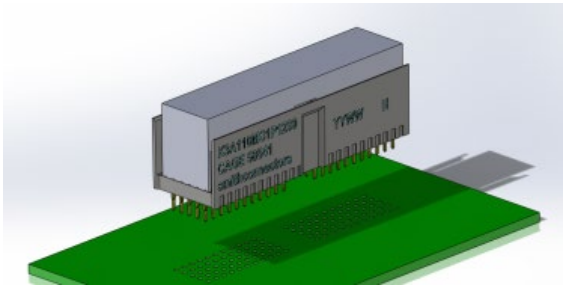
With the appropriate application tooling (see section 2 above) the SpaceNXT™ Aurora series can be assembled to the printed circuit board using manual, hydraulic or programmable presses. Prior to assembly, the following points should be followed:

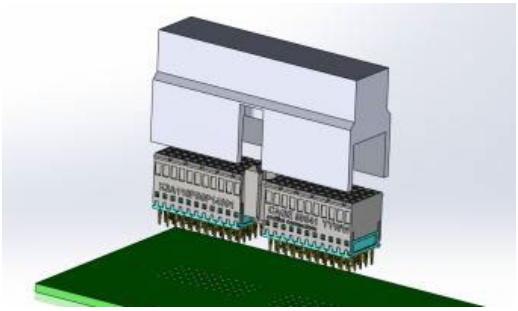
- The maximum force applied should not exceed the strength of the plastic. There should be no evidence of deformed or fractured plastic.
- The stroke of the press should be controlled to +/-0.05mm. It is recommended that the stroke distance be adjusted with each batch to account for variation in PCB thickness.

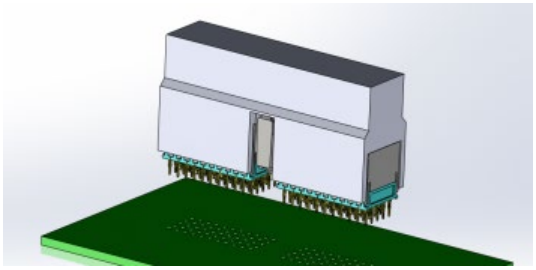
Pressing Connector

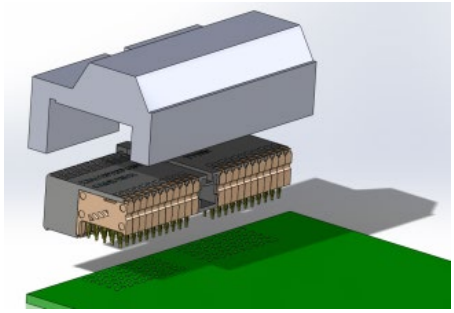
1. Fit Connector Module to Tool

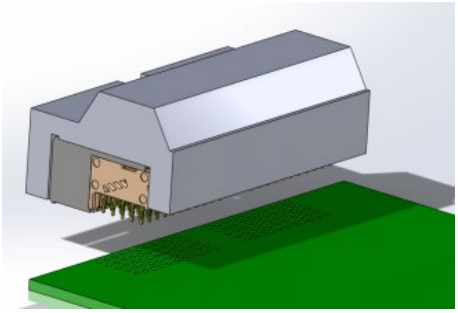








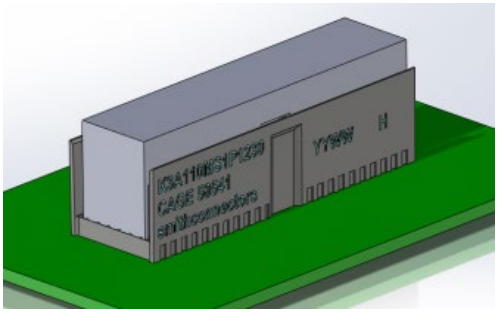


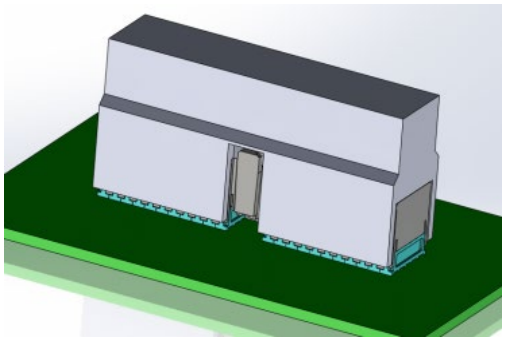


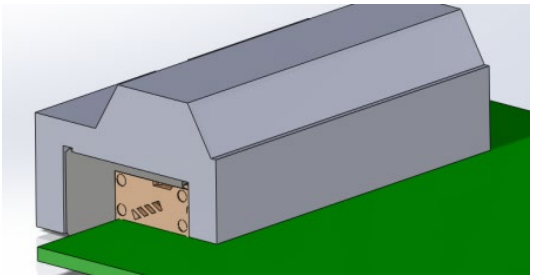
2. Align Compliant Terminals with Print Circuit Board

3. Apply Steady Force to Center of Tool

Make certain there is no gap between the PCB and connector standoff. Appoximate force per module is:







Printed Circuit Board

PCB plated through-holed must be in accordance with specification in IEC 61076-4

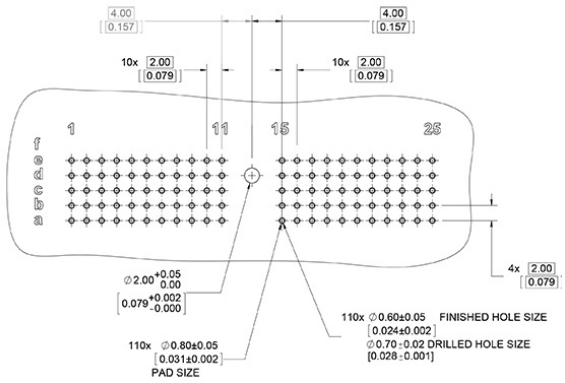
Manufacturing Tolerance

Ø 0.6 ± 0.05 mm Finished Plated Through-Hole:

- **Drilled Hole:** Ø 0.7 ± 0.02 mm
- **Copper Plating:** 25 µm min.
- **Tin/Tin-Lead:** 15 µm max.

PCB Mounting Pattern

K3SA110MS1P1230



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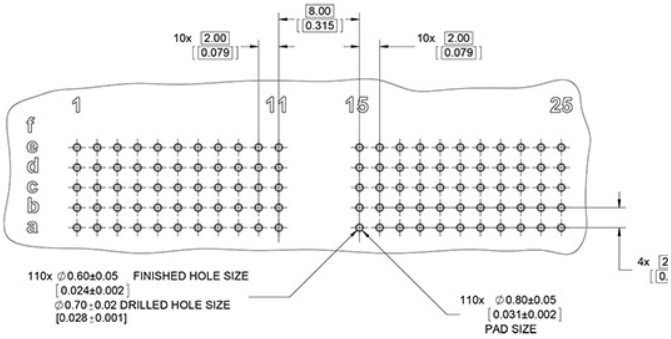

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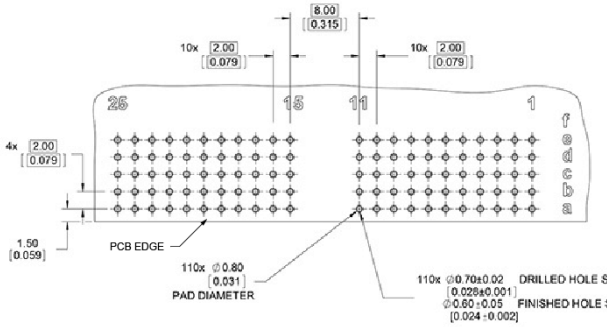

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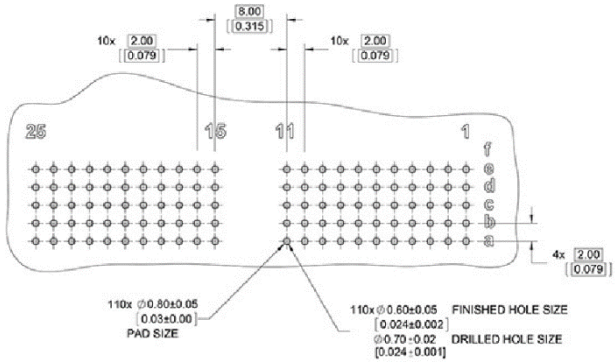

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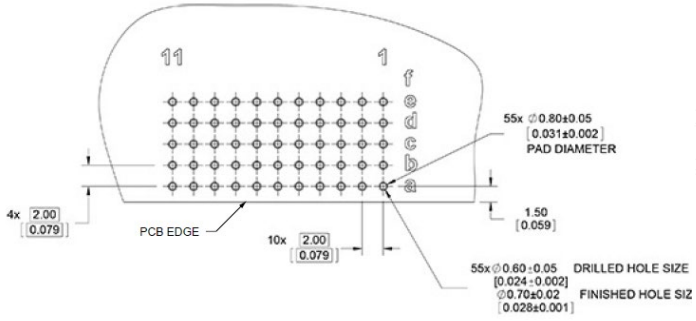

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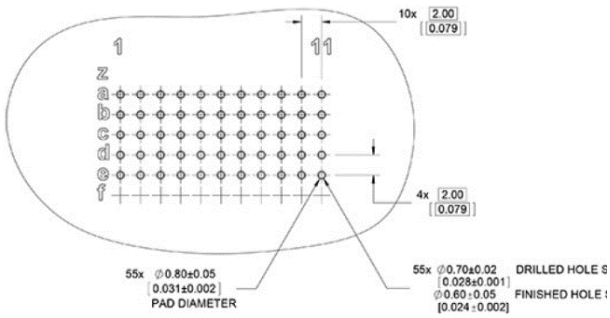

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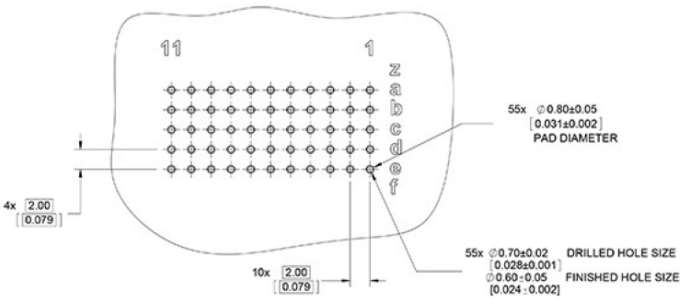

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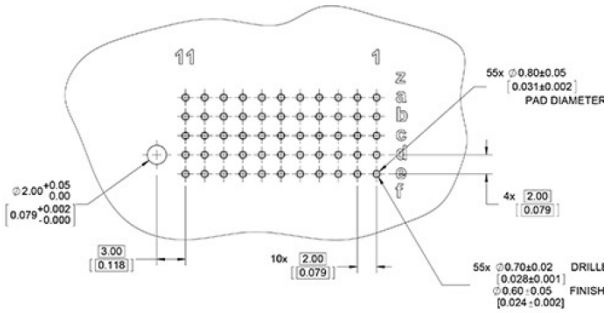

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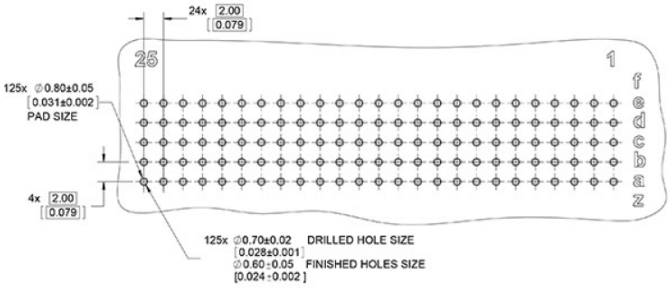

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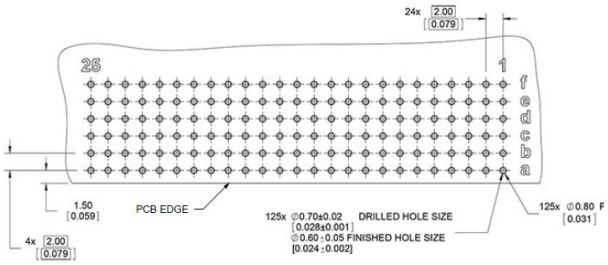

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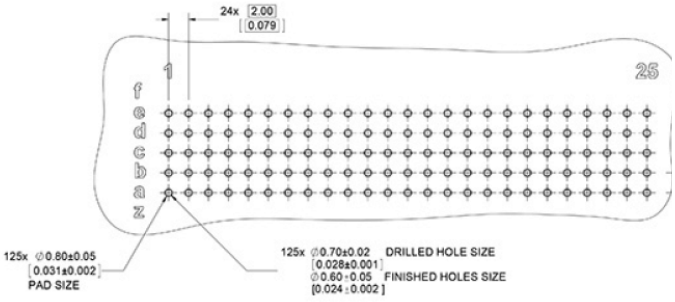

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