1. **SPECIFICATION DISTRIBUTION**
   No restrictions for issue

2. **SCOPE**
   This specification contains the application notes for the 9296 poke home SMT vertical mount connectors

3. **RELATED DOCUMENTS**
   - 00-9296-00X-503-XX6S — 9296 Poke Home — Through Board Mount
   - 00-9296-00X-553-XX6S — 9296 Poke Home — Top Mount
   - 201-01-151 — Product Specification
   
   Note: The colours used in this specification are for clarity only.

4. **9296 CONNECTORS**
   A range of poke home wire to board connectors. 1 to 6 way, available for top mount and through board mount SMT soldered to a PCB.

   For wires (solid and stranded) 18AWG to 26AWG. Maximum insulation 2.2mm diameter.

   Stranded wires work best with a smaller number of strands (larger strand diameter). We recommend that ALL stranded wires after stripping are bunched and twisted to achieve better retention forces within the contact.

   Stranded wires with a larger number of strands (thinner strands) can be used but it is important that all the strands are tightly twisted to gain maximum strength. It is possible to tin the ends but the conductor diameter must not exceed 1.1mm.

   All wire types can be used in both plated and un-plated condition.

4.1. **00-9296-00X-503-XX6 — THROUGH BOARD MOUNT**

4.2. **00-9296-00X-553-XX6 — TOP MOUNT**
4.3. 00-9296-00X-553-XX6 — PICK & PLACE

Tape in top centre of connector.

00-9296-00X-553-XX6 top mount connectors supplied with kapton tape to aid pick and place. To be removed after soldering operation.

5. 9296 WIRE TERMINATION PROCEDURE

5.1. WIRE STRIPPING

Insulation Strip Length

Wire insulation strip length for 26/24/22/20/18AWG wires is recommended to be 3.5mm to 4.5mm.

Stranded wire should be tightly bunched and twisted before insertion.

5.2. WIRE INSERTION

Wires are inserted through the front aperture of the connector.

They should be pushed until the stop face is reached. Small diameter wires can buckle if over inserted therefore stop pushing as soon as the stop is reached.

6. WIRE EXTRACTION TOOL

Two tools are available to aid wire extraction.

06-9296-7003-01-000 a plastic tool for low volume applications.

06-9296-7004-03-000 a metal tool for higher volumes.

7. WIRE EXTRACTION PROCESS

7.1. WIRE EXTRACTION

Insert blade into slot beside the wire to be removed.

Keeping the tool in position withdraw the wire. Then remove the tool.
7.2. UL REQUIREMENTS FOR PAD SPACING — APPLIES TO ONE WAY CONNECTORS ONLY

UL approval based on minimum 3.2mm spacing between pads.

Connector centre line spacing minimum 5.6mm.

This applies to one way connectors only.

For non UL applications the gap may be reduced at the customers discretion depending on the maximum voltage applied.