



## Positronic Industries Inc

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## Qualification Plan and Summary Report

### **Project Name:**

Qualification of Supplier Contacts for DD

### **Project Manager:**

Jason Lantz

# Revision History

Revision Number	Revision Date	Created By	Comments	Approved By
A	01/30/2019	JLL	Initial Revision	TK
B				
C				
D				

## Project Description:

Validation of contacts from another supplier to provide quality DD contacts to meet demand.

Contacts must meet or exceed catalog requirements for DD series connectors.

## Test Plan:

Testing consisted of a retention of qualification test plan per AS39029 and a general insertion/removal/retention test within Positronic moldings.

Performance Characteristics:

- Must retain 9 lb. within insulator (per Positronic DD catalog)
- Must pass Retention of Qualification AS39029 specification (Table 15 Group I)
  - Product Examination
  - Magnetic Permeability
  - Axial Concentricity
  - Low Signal Contact Resistance
  - Contact Resistance
  - Temperature Cycle/Shock
  - Crimp Tensile Strength

## Qualification Summary:

Testing was performed on the following samples:

1. (8x Per AS39029 Spec) A4806-5-0-15 Purchased DD Crimp Contacts

Results: Samples passed all testing per retention of qualification testing detailed in AS39029 in addition to Positronic molding testing. Test results in below table.

	Requirements	Results	Conclusion
Dimensional Inspection	-	Conformance	Pass
Magnetic Permeability	Max 2 $\mu$	<2 $\mu$	Pass
Axial Concentricity	TIR<0.279 mm	Avg. TIR=0.062 mm	Pass
Low Signal Contact Resistance	Max 15 mohms	Avg. 10 mohms	Pass
Contact Resistance	Max 73 mVolts	Avg. 53 mVolts	Pass
Temp. Cycle/Shock	-	No Damage	Pass
Crimp Tensile Strength	Min 12 lbf.	Avg. 15.2 lbf.	Pass
Insulator Retention	Min. 9 lbf.	Avg. 19.9 lbf.	Pass