

REPORT EL-2011-02-032C CR
MezzoStak™ Connector Mating With Intentional X & Y Direction Offset
03JUN2011

PURPOSE

This report summarizes testing performed in the FCI product test laboratory in Etters, PA USA. The purpose of this testing was to compare the amount of misalignment FCI MezzoStak and 0.5mm pitch competitor connectors can withstand before stubbing. Testing was performed in accordance with product engineering test procedure “X/Y Mate Testing” 2/15/11.

SAMPLE DESCRIPTION

FCI samples were obtained from inventory. All competitor samples were purchase from authorized distributors. All competitor samples purchased are represented in this report. All samples were submitted to the product test laboratory assembled to FCI test board 10106815-001 rev 2. Samples were deemed suitable for testing by a member of the product test laboratory staff.

TEST DESCRIPTION

All testing was performed using an Instron compression/tensile tester. One connector/test board was held in the tester cross-head using a free-floating fixture. The other connector/test board was held in a vise mount on an X-Y table which enabled positive and negative displacement in both X and Y directions. The X direction was defined as parallel to the long axis of the connector housing. The Y direction was defined as perpendicular to the long axis of the connector housing. The connector mounted to the X-Y table was offset in 0.05mm (0.002”) increments until stubbing occurred during mating of the connectors. Figure 1 illustrates the test set-up.

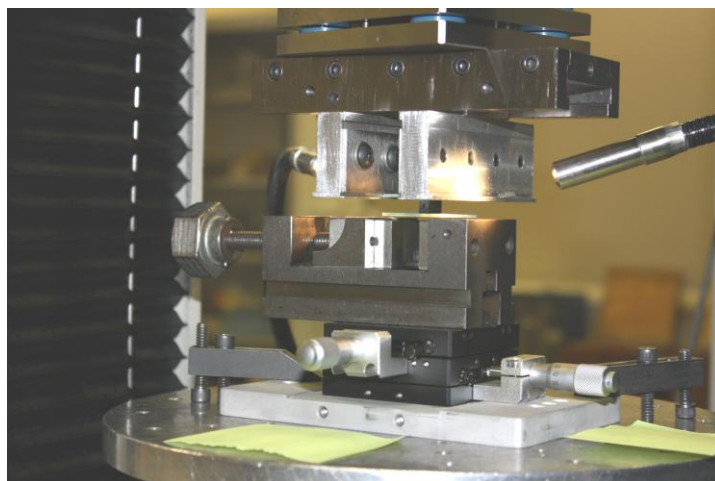


Fig. 1 – Offset Mating Test Set-up

TEST RESULTS:

Table 1 lists the offset distance at which stubbing occurred during connector mating.

Table 1 – Offset Distance (mm) Producing Stubbing

Sample ID	+X Offset	+Y Offset
FCI	0.75	0.90
Competitor 1	0.45	0.50
Competitor 2	0.50	0.50
Competitor 3	0.45	0.70
Competitor 4	0.55	0.60
Competitor 5	0.60	0.45
Competitor 6	0.45	0.80
Competitor 7	1.00	0.55

EQUIPMENT:

ITEM NAME	MANUFACTURER	ID NUMBER	LAST CALIBRATION	CALIBRATION DUE DATE
Compression/Tensile Tester	Instron	VG7171	JUL2010	JUL2011

Revision Record			
Revision Level	Revision Date	Pages Changed	Description of Changes
A	03JUN2011	All	Original release