

DECEMBER 22, 1997

TEST REPORT #97676

VOLTAGE RATING

SAMTEC



APPROVED BY: MAX PEEL
PRESIDENT AND DIRECTOR OF ADVANCED RESEARCH
CONTECH RESEARCH, INC.

CERTIFICATION

This is to certify that the evaluation described herein was designed and executed by personnel of Contech Research, Inc. It was performed in concurrence of Samtec of New Albany, IN who was the test sponsor.

All equipment and measuring instruments used during testing were calibrated and traceable to NIST according to ISO 10012-1 and ANSI/NCSL Z540-1, as applicable.

All data, raw and summarized, analysis and conclusions presented herein are the property of the test sponsor. No copy of this report, in part or in full, shall be forwarded to any agency, customer, etc., by Contech Research without the written approval of the test sponsor.



Max Peel
President

MP:gb

EQUIPMENT LIST

December 23, 1997

ID#	Next Cal	Last Cal	Equipment Name	Manufacturer	Model #	Serial #	Accuracy	Freq.Cal
321	1/30/98	1/30/97	AC-DC Hipot/Megometer	Hipotronics Co.	H306B	DS16-201	N/A	12 mon.

TEST RESULTS

PROJECT NO.: 97676 SPECIFICATION: EIA 364, TP 20

PART NO.: See Below PART DESCRIPTION: Connectors

SAMPLE SIZE: One Each TECHNICIAN: JRV

START DATE: 12/16/97 COMPLETE DATE: 12/18/97

ROOM AMBIENT: 22°C RELATIVE HUMIDITY: 26%

EQUIPMENT ID#: 321

DIELECTRIC WITHSTANDING VOLTAGE (SEA LEVEL)

PURPOSE:

To determine if the connectors can operate at its rated voltage and withstand momentary overpotentials due to switching, surges and other similar phenomenon.

PROCEDURE:

1. The test was performed in accordance with EIA 364, Test Procedure 20.
2. Test Conditions:
 - a) Between Adjacent Contacts : Yes
 - b) Mated Condition : Unmated
 - c) Mounting Condition : Unmounted
 - d) Rate of Application : 500 volts/sec.
 - e) Test Voltage : Until Breakdown Occurs
3. For each connector tested, ten (10) adjacent contact pairs were tested using point to point technique.
4. Voltage was applied until breakdown or arcing occurred.

REQUIREMENTS:

1. The dielectric withstanding voltage shall be established as 75% of the minimum breakdown voltage observed.
2. The operating voltage (working) shall be established as 1/3 of the dielectric withstanding voltage.

RESULTS:

1. The following is a summary of the observed breakdown levels:

BREAKDOWN VOLTAGE VAC

P/N TLW-120-05-G-D

2700
2700
2500
3000
3100
2900
1800
2100
2100
2100

P/N TMM-120-01-S-D-SM

1400
1400
1600
2100
1800
1600
1800
1900
2100
2000

P/N TSM-120-01-S-DV

2800
2200
3000
2500
2800
2800
2500
2600
2700
2800

P/N FTMH-120-02-F-DV-ES

1700
1700
1300
1300
1300
1300
1100
1100
1100
1300

P/N FTE-120-01-G-V

800
840
800
820
820
940
800
900
840
800

P/N FTSH-120-03-L-DV

1060
1300
1100
1400
1500
1200
1800
1800
1700
1800

RESULTS - Continued:

<u>P/N FOLC-120-02-S-Q</u>	<u>P/N MOLC-120-02-S-Q</u>
880	1200
1080	1080
1050	1100
1020	1120
1140	1060
1100	1080
1140	1060
880	1100
1100	1040
1120	1060

2. The following voltage levels are established as follows:

<u>PART NO.</u>	<u>DIELECTRIC WITHSTANDING VOLTAGE (VAC)</u>	<u>WORKING VOLTAGE (VAC)</u>
TLW-120-05-G-D	1350	450
TMM-120-01-S-D-SM	1050	350
TSM-120-01-S-DV	1650	550
FTMH-120-02-F-DV-ES	825	275
FTE-120-01-G-V	600	200
FTSH-120-03-L-DV	795	265
FOLC-120-02-S-Q	660	220
MOLC-120-02-S-Q	780	260