

**SYPRIS**  
TEST & MEASUREMENT

6120 Hanging Moss Road, Orlando, Florida, 32807 (407) 678-6900, FAX (407) 671-0664

Customer: **Planar Monolithics Industries, Inc.**

Purchase Order #: **PET0900431**

Job No.: **281594**

Order Quantity: **4(2+2)**

Mfg. P/N **N/A**

Customer P/N: **T0737SOCN730049-001**

Generic P/N **N/A**

Specification **Customer's PO & MIL-STD-202G**

Part Type: **Microcircuit**

Prepared By: **Michael Dombrowski**



Date Prepared: **9/17/09**

Reviewed By:



Date Reviewed:

**9-17-09**

## CERTIFICATE OF COMPLIANCE

This is to certify that the referenced item was subjected to a testing program in accordance with your Procurement Document, as defined in the attached test plan. This plan specifies the test sequence, outlines the test conditions and provides a summary for each test.

Sypris Test & Measurement does not infer or imply that the test methods utilized in the body of this report have been granted suitability by the Defense Supply Center Columbus, (DSCC). A current listing of approved suitability methods is available upon request.

Mfr.: Planar Monolithics Industries Date Code: 0936 Accept: 4\* Reject: 0

Note: Sypris performed no PASS/FAIL inspection on Moisture Resistance Units. Final results must be evaluated by Planar Monolithics Industries, Inc.

## SEE ATTACHED DOCUMENTATION

Approved By:



Date Approved:


**9-28-09**

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TASK	CONDITIONS	Date Completed	Operator Stamp

INCOMING INSPECTION	Visual check for shipping damage Verify packing slip information	9/17/09	STM 20-17 TECH					
	<table border="1"> <thead> <tr> <th>Quantity</th> <th>Part #</th> <th>Date Code</th> <th>Serial #</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>T0737SOCN730049-001</td> <td>0936</td> <td>Test Unit 1-4</td> </tr> </tbody> </table>			Quantity	Part #	Date Code	Serial #	4
Quantity	Part #	Date Code	Serial #					
4	T0737SOCN730049-001	0936	Test Unit 1-4					

MOISTURE RESISTANCE	<p><b>Documentation:</b> MIL-STD-202G, Method 106g Customer P.O.</p> <p><b>Conditions:</b> Perform Initial Conditioning: No Perform Initial Measurements: No Step 7 applicable: No Number of Cycles: 10 Cycle Duration: 24 hours each (Per Figure 106-1)</p> <p><b>RETURN PARTS IN MOISTURE BARRIER BAG! DEVICES MUST BE ELECTRICALLY TESTED AT PLANAR MONOLITHICS INDUSTRIES, INC. WITHIN 48 HOURS OF REMOVAL FROM CHAMBER!</b></p> <p><b>Details:</b> Operational: NA Failure criteria: End point measurements to be performed by Planar Monolithics Industries.</p> <p><b>Operator's Notes:</b> Only Test serial numbers labeled "TEST UNIT 1 and TEST UNIT 2"</p> <p>The units under test were subjected to the above conditions for the conditional period of time. After completion of testing it was noted that a large portion of the leads on one unit had rusted as well as the tip of one of the pins on the other unit under test. Sypris Test &amp; Measurement did not perform an electrical test of the parts and final compliance is to be determined by Planar Monolithics Industries, Inc.</p>	9/28/09	STM 20-17 TECH
	<p>Date In: 9/18/09      Date Out: 10:54 AM</p> <p>Time In: 9/28/09      Time Out: 10:54 AM</p> <p>Qty in: 2      Qty Out: 2</p>		

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<b>RESISTANCE TO SOLVENTS</b>	<p><b>Documentation:</b> Customer P.O. &amp; MIL-STD-202G Method 215K</p> <p><b>Conditions:</b> A) 1/4 Isopropyl Alcohol 3/4 Mineral spirits at +25°C (±5°C)  C) A terpene based solvent (BIOACT EC7)  D) 42 parts by volume deionized water 1 part by volume propylene glycolmonomethyl ether 1 part by volume monoethanolamine.</p> <p>Solvents A, and C are at +25°C ± 5°C Solvent D is between +63 and +70°C.</p> <p><b>Procedure:</b></p> <ol style="list-style-type: none"> <li>1. Expose units to first chemical solution.</li> <li>2. Examine units for failures</li> <li>3. Expose units to second chemical solution.</li> <li>4. Examine units for failures</li> <li>5. Expose units to third chemical solution.</li> <li>6. Examine units for failures.</li> </ol> <p><b>Details:</b> Failure criteria: Evidence of cracking, crazing, discoloration, bleeding of foreign matter, and pitting. All markings should be legible.</p> <p><b>Operator's Notes:</b>  <b>Only Test serial numbers labeled "TEST UNIT 3 and TEST UNIT 4"</b></p> <p><b>Evaluation &amp; Results:</b>  <b>Testing was performed on one unit serial number labeled "TEST UNIT 3 and TEST UNIT 4" by following the application of the prescribed test conditions stated above.</b></p> <p><b>All units tested were found to have Passed Testing.</b></p>		<p>9/24/09</p> 
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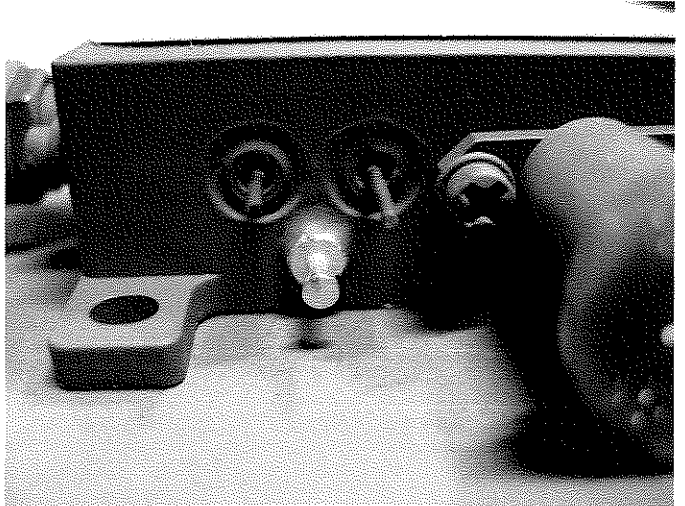
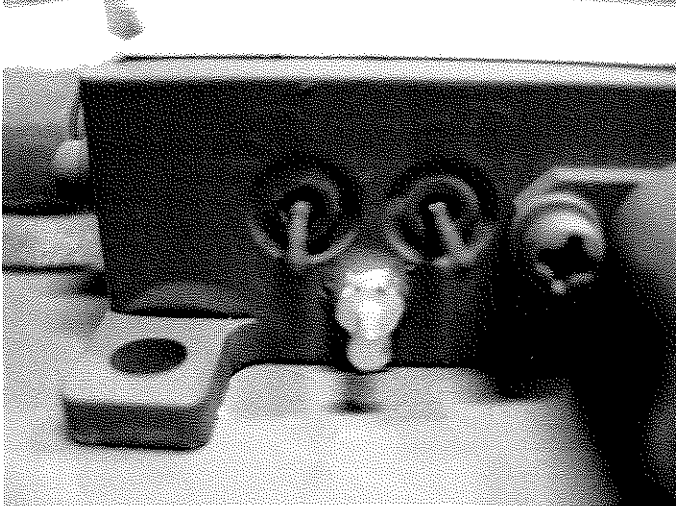
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**PHOTOS OF HUMIDITY TESTING**

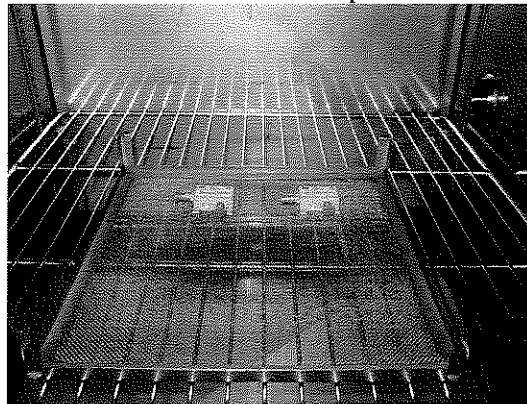
Before



After

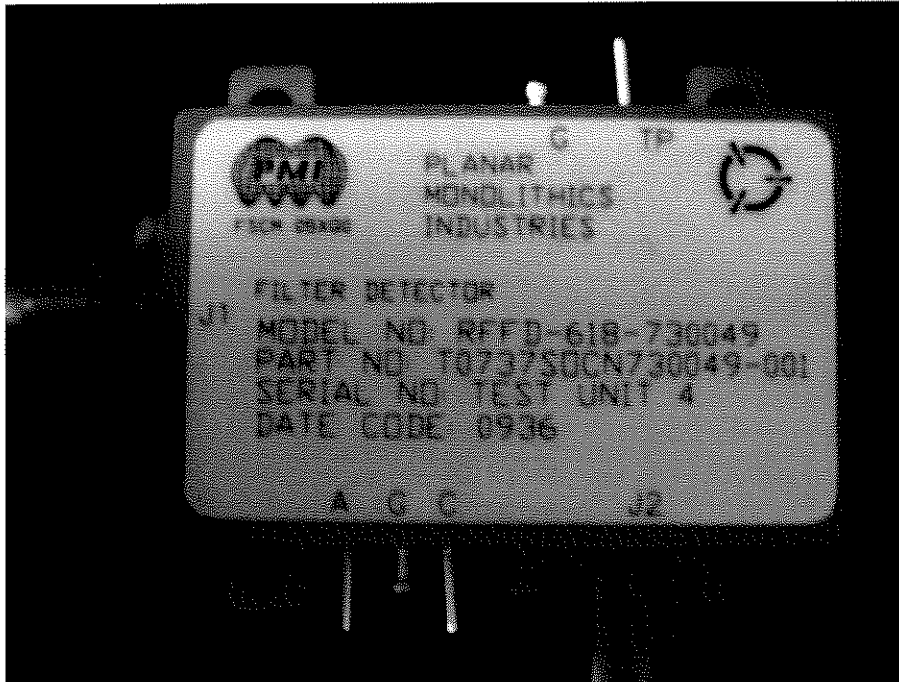


Chamber Setup



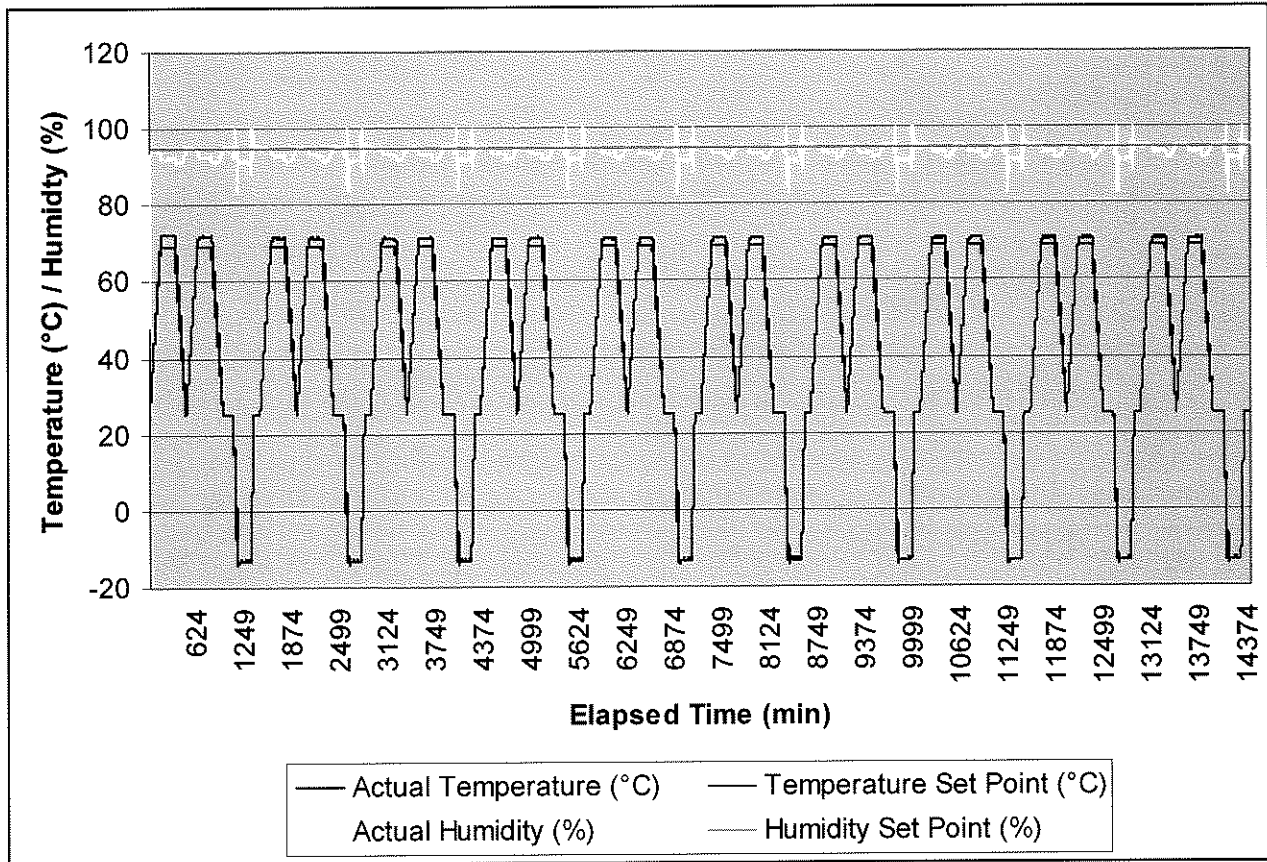
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PHOTOS OF RESISTANCE TO SOLVENT TESTING





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### HUMIDITY CHAMBER DATA PLOT



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TASK	CONDITIONS	Date Completed	Operator Stamp

USAGE LOG	All Equipment Station Logs Completed.	9/28/09						
				<table border="1"> <thead> <tr> <th>Manufacturer</th> <th>Model # / Function</th> <th>Asset #</th> <th>Cal. Due</th> </tr> </thead> <tbody> <tr> <td>Thermotron</td> <td>SM-8 / Temp/Humidity Chamber</td> <td>83-6249</td> <td>8/19/10</td> </tr> </tbody> </table>	Manufacturer	Model # / Function	Asset #	Cal. Due
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Thermotron	SM-8 / Temp/Humidity Chamber	83-6249	8/19/10					

PACK	Use original container or equivalent One copy of test plan.	9/28/09	
SHIP TO:	PLANAR MONOLITHICS INDUSTRIES, INC. 7311-F GROVE ROAD, PMI FREDERICK, MD 21704  <b>*MUST RETURN ON A WEEKDAY TO AVOID MISSING          48 HR. TESTING WINDOW.</b>		
SHIP VIA:	UPS BLUE		