



## TEST REPORT

<b>In Account With</b> <b>TEXAS INSTRUMENTS</b> <b>12500 TI Blvd., MS 8740</b> <b>Dallas, TX 75243</b>  <b>Attn: Keith Johnson</b>	<b>Date</b> <b>May 22, 2018</b>	<b>Page 1 of 2 Pages</b>
	<b>W.O. Number</b> <b>62636</b>	<b>Specification</b> <b>ASTM E 595</b>
	<b>P.O. No.</b> <b>4513512176</b>	<b>Received</b> <b>05-11-18</b>

**IDENTIFICATION:** One (1) lot of integrated circuit samples was submitted for Outgas Testing in accordance with ASTM E 595. The test sample was identified as follows:

- 1) P/N MSP430 FR5969-MLS

**SPECIFICATION :** ASTM E 595.

**REFERENCE :** Purchase Order 4513512176.

**TESTING :** Outgas Testing.

**SUMMARY :** The test results, reported herein, are submitted for customer evaluation.

PACIFIC TESTING LABORATORIES, INC.

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**OUTGAS TESTING**

**REFERENCE** : ASTM E 595.

**REQUIREMENT** : ASTM E 595, paragraph 1.5:

The criteria used for the acceptance and rejection of materials shall be determined by the user and based upon specific component and system requirements. Historically, a total mass loss (TML) of 1.00% and collected volatile condensable material (CVCM) of 0.10% have been used as screening levels for rejection of spacecraft materials.

**TEST METHOD** : The Outgas Test was performed in a vacuum environment of less than  $5 \times 10^{-5}$  torr according to ASTM E 595, for a duration of 24 hours, at 125°C. The TML, CVCM, and the amount of Water Vapor Recovered (WVR) were measured after the test.

**RESULTS** : The following tables list the results of the testing:

Table 1: Outgas test results.

Sample	TML (%)	CVCM (%)	WVR (%)
P/N MSP430 FR5969-MLS	0.06	<0.01	0.05

Table 2: Testing observation results.

Observations			
Visible Condensate	No	Opaque	N/A
Percent Covered	0%	Interference Fringes	N/A
Thin	N/A	Colored Fringes	N/A
Heavy	N/A	Sample appearance after test	No change
Transparent	N/A		

**REMARKS** : The test results, reported herein, are submitted for customer evaluation.