

# TEST PRODUCT QUALIFICATION REPORT

**TITLE:**

ADuM1400W/ADuM1401W/ADuM1402W SOIC\_W  
Test Platform Migration from CTS 5040 to Teradyne  
Microflex

**PCN NUMBER:**

16\_0209

**REVISION:**

A

**DATE:**

November 08, 2016

## SUMMARY

The ADuM1400W/ADuM1401W/ADuM1402W are quad-channel digital isolators based on Analog Devices, Inc., *iCoupler*® technology. Combining high speed CMOS and monolithic air core transformer technology, these isolation components provide outstanding performance characteristics superior to alternatives, such as optocoupler devices. This product is being tested on the CTS5040 which is a constrained ADI manufactured tester. The proposed change is to add a new test capability on Microflex which is being manufactured by Teradyne.

There is no change to the form, fit, function, quality or reliability of the transferred parts.

This report documents the result of the evaluations done to qualify the Teradyne Microflex as an additional platform for testing the ADuM1400W/ADuM1401W/ADuM1402W devices.

## TEST AND PRODUCT INFORMATION

Devices(Generics):	ADuM1400/ADuM1401/ADuM1402
Package:	SOIC_W
Leads:	16
Parts Affected:	ADUM1400WSRWZ ADUM1400WSRWZ-RL ADUM1400WTRWZ ADUM1400WTRWZ-RL  ADUM1401WSRWZ ADUM1401WSRWZ-RL ADUM1401WSRWZ55 ADUM1401WSRWZ55-RL ADUM1401WTRWZ ADUM1401WTRWZ-RL ADUM1401WTRWZ55 ADUM1401WTRWZ55-RL  ADUM1402WSRWZ ADUM1402WSRWZ-RL ADUM1402WSRWZ55 ADUM1402WSRWZ55-RL ADUM1402WTRWZ ADUM1402WTRWZ-RL
Current Platform:	CTS5040 with MT9308_PB_RW handler
New Platform:	Teradyne Microflex with MT9308_PB_RW handler

**Description and Test Results** (Taken from the Test Platform Migration Criteria)

Table 1 & Table 2 provide a description of the qualification tests conducted and corresponding test results for ADuM1400W/ADuM1401W/ADuM1402W. All the units have undergone electrical tests on both the CTS5040 and Teradyne MicroFlex test platforms. Any device that did not meet the electrical qualification requirements, without further analysis and data to prove passing the qualification would be considered failed.

Table 1: Test Product Correlation Criteria

Model	Package	Testing Site	CTS5040 Test Lot Size	MicroFlex Test Lot Size	Mean Shift [(platform1 – platform2 ) / SW GB] < 1
ADuM1400WSRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1400WTRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1401WSRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1401WTRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1402WSRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1402WTRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed

Table 2: Test Product Guard banding (GB) Criteria

Model	Package	Testing Site	CTS5040 Test Lot Size	MicroFlex Test Lot Size	GB (5.5* Sigma + Delta Means) NI_STS_GP GB = or < SW GB or Microflex GB
ADuM1400WSRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1400WTRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1401WSRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1401WTRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1402WSRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed
ADuM1402WTRWZ	SOIC_W	ADGT	100	100	Reviewed and Passed

Table 3 shows results of the qualification lots run for the ADuM1400W/ADuM1401W/ADuM1402W. The qualification lots have undergone electrical test on both CTS5040 and Teradyne MicroFlex test platforms. Any deviation on the lot qualification run criteria without further analysis and data to prove a passing qualification would be considered a failed qualification lot run.

Table 3: Test Product Qualification Results

Model	Package	Lot number	Lot Size	Good units passed on both test platforms?	Reject units failed on the same test parameter for both test platforms?
ADuM1400WSRWZ	SOIC_W	AM69292.1	300	Yes	Yes
ADuM1400WSRWZ	SOIC_W	AM89286.1	300	Yes	Yes
ADuM1400WTRWZ	SOIC_W	LS982369.6	300	Yes	Yes
ADuM1400WTRWZ	SOIC_W	LS982369.7	300	Yes	Yes
ADuM1401WSRWZ	SOIC_W	AK15800.19	100	Yes	Yes
ADuM1401WTRWZ	SOIC_W	LS994330.3	300	Yes	Yes
ADuM1401WTRWZ	SOIC_W	LS994330.4	300	Yes	Yes
ADuM1402WSRWZ	SOIC_W	AM89287.1	300	Yes	Yes
ADuM1402WSRWZ	SOIC_W	AM89287.2	300	Yes	Yes
ADuM1402WTRWZ	SOIC_W	AM66480.1	150	Yes	Yes
ADuM1402WTRWZ	SOIC_W	AM66480.2	150	Yes	Yes

**Approvals**

Technical Review Board (TRB)

**Supporting Document**

TRB# 10824