

# **TEST PRODUCT QUALIFICATION REPORT**

**TITLE:**

ADUM1200W/ ADUM1201W SOIC\_N High Voltage  
Test Platform Migration from Harris-Tuvey to MPS at  
ADGT

**PCN NUMBER:**

**17\_0146**

**REVISION:**

A

**DATE:** May 28, 2016

## SUMMARY

The ADuM1200W/ADuM1201W are dual-channel digital isolators based on Analog Devices, Inc., iCoupler® technology. Combining high speed CMOS and monolithic transformer technology, these isolation components provide outstanding performance characteristics superior to alternatives such as optocoupler devices. In accordance with UL and VDE standards these products are being high voltage tested on the Harris-Tuvey test platform in production. This is an aging and limited manufacturing test platform. The proposed change is to add new high voltage test capability using the MPS PD test platform manufactured by MPS Mess-& Prüfsysteme GmbH.

There is no change to the form, fit, function, quality or reliability of product when tested on the new test platform.

This report documents the result of the evaluation done to qualify the MPS PD tester as an additional high voltage test platform for the ADuM1200W/ ADuM1201W product family.

Test product qualification was performed according to Analog Devices Specifications (TST00094/TST00095 – Test Platform Migration Specification).

## TEST AND PRODUCT INFORMATION

Devices(Generics):	ADuM1200W	ADuM1201W
Package:	SOIC_N	SOIC_N
Leads:	8	8
Parts Affected:	ADUM1200WSRZ ADUM1200WSRZ-RL7 ADUM1200WTRZ ADUM1200WTRZ-RL7 ADUM1200WTRZ55 ADUM1200WTRZ55-RL7	ADUM1201WSRZ ADUM1201WSRZ-RL7 ADUM1201WTRZ35 ADUM1201WTRZ35-RL7 ADUM1201WTRZ53 ADUM1201WTRZ53-RL7 ADUM1201WSRZ55 ADUM1201WSRZ55-RL7 ADUM1201WTRZ55 ADUM1201WTRZ55-RL7
Current Platform:	Harris-Tuvey with Atrium 5050FHV handler	Harris-Tuvey with Atrium 5050FHV handler
New Platform:	MPS with Atrium VMAX handler	MPS with Atrium VMAX handler

### Description and Test Results

The Harris-Tuvey high voltage test platform does not provide data logs for tested units; only a pass or fail result is provided. The MPS test platform provides data logs for leakage current and partial discharge measurements that will be recorded and maintained over time.

The **ADuM1200W and ADuM1201W** dual-channel digital isolators are manufactured using the same package, the same transformer technology and on the same high voltage isolation process. The four lots listed below, along with additional test results from multiple products using the 8-lead SOIC\_N package, were used to qualify the four generics on the MPS test platform.

Table 1: Shows results of the qualification lot run for the ADuM120xW. The qualification lots have undergone high voltage testing on both Harris-Tuvey and MPS 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.

As shown in Table 1, all units that passed on the Harris-Tuvey platform also passed on the MPS platform and all units rejected by the Harris-Tuvey platform were also rejected by the MPS test platform thereby demonstrating correlation of both good and bad units between platforms.

**Table 1: Test Product Qualification Lot Run**

Generic	Package	Lot number	Lot Size	Good units passed on both test platforms?	Reject units failed on the same test parameter for both test platforms?
ADUM1200	SOIC_N	AL37941.2	100	Yes	No Rejects
ADUM1200	SOIC_N	AL24684.2	100	Yes	No Rejects
ADUM1200	SOIC_N	AL23317.2	100	Yes	No Rejects
ADUM1200	SOIC_N	S969151.3	100	Yes	No Rejects
ADUM1200	SOIC_N	AL20227.2	100	Yes	No Rejects
ADUM1201	SOIC_N	AL37955.2	100	Yes	No Rejects

**Approvals**

Product Line Manager  
Test Development Manager  
Test Product Manager  
Quality Manager

**Supporting Document**

Technical Review Board: TRB# 32531

**Additional Information**

ADI Homepage:

<http://www.analog.com/en/index.html>

ADI Datasheets:

[http://www.analog.com/media/en/technical-documentation/data-sheets/ADuM1200\\_1201.pdf](http://www.analog.com/media/en/technical-documentation/data-sheets/ADuM1200_1201.pdf)