



Reliability Report

Report Title: Military Qualification of OP77 Die Change

Report Number: 8180

Revision: A

Date: 1 February 2010

Summary

This report documents the successful completion of the Military Qualification requirements for release of the ADOP77 product in an 8-CERDIP package. The ADOP77 is an Ultralow Vos Op Amp. A Thin Film Resistor was changed in size on the ADOP77 to better center the Vos of the device.

Table 1: OP77 Product Characteristics

Die/Fab

Device / Die ID	A
Die Size (mm)	1.86 x 2.35
Wafer Fabrication Site	WILM1B06
Wafer Fabrication Process	Bipolar 1
Transistor Count	49
Passivation Layer	doped-oxide/SiN
Bond Pad Metal Composition	AlCu
Die Overcoat	Polyimide

Package/Assembly

Available Package	8-CERDIP
Body Size (mm)	300 x 400 x 0.2
Assembly Location	ADPI
Molding Compound	NA
Wire Type	Aluminum
Wire Diameter (mils)	1.25
Die Overcoat	NA
Die Attach	JM-7000
Lead Frame Material	Alloy 42
Lead Finish	Hot Solder

Description / Results of Tests Performed

Table 2 provide a description of the qualification tests conducted and the associated test results for the products manufactured on the same technologies as described in Tables 1. All devices were electrically tested before and after each stress. Any device that did not meet all electrical data sheet limits following stressing would be considered a valid (stress-attributable) failure unless there was conclusive evidence to indicate otherwise.

Samples of the many devices manufactured with these package and process technologies are continuously undergoing reliability evaluation as part of the ADI Reliability Monitor Program. Additional qualification data is available on [Analog Devices' web site](#).

Table 2: Process Qualification Test Results

Test Name	Conditions	Specification	Device	Fab Process	Lot #	Sample Size	Qty. Rejects
HTOL	Ta=125C, Biased 1000 hours	Mil-Std-883C Method 5005 Group C	OP77	Bipolar 1	Q8180.1	77	0

Approvals

This report has been approved by electronic means (4.0). Reliability Engineer:
Denis Belisle

Additional Information

Data sheets and other additional information are available on [Analog Devices' web site](#).