ANALOG
DEVICES

RELIABILITY REPORT

FILE NO: RQ93-006
DEVICE: REF195
PACKAGE: 8 LEAD SOIC
SUBJECT: NEW PRODUCT
QUALIFICATION

Reliability Engineering:
Antonio Tabarez
Q.A. Manager:
Michelle Ramsey
Date: 09/16/93

DEVICE INFORMATION:

GENERAL:

Device	**REF195**
Manufacturer	**Analog Devices - Santa Clara**
Generic Process Family	**CBCMOS 1 / SLM**
Process Code	**CBCMOS**
Package	**8 Lead SOIC**
Fabrication Location	**AD Santa Clara**
Assembly Location	**ADGT**
Test Location	**ADSC / ADTL**

DIE/PACKAGE:

Die Size	**40 x 57 mil^2**
Maskset/Revision	**5520Z**
Transistor Count	**29 BJT's, 4 MOSFET's, 2 JFET's**
Power Dissapation	**.72 mW**
Passivation	**Universal**
Passivation Thickness	**10 k Å/ 8 k Å**
Minimum Metal Width	**5 μm**
Mimimum Metal to Metal Spacing	**3 μm**
Metal Material	**Al-Si-Cu**
Metal Thickness	**7 k Å**
Lead Frame Material	**Olin 194 - Copper**
Inner Plating Thickness	**125 μm**
Inner Plating Material	**Silver Spot**
Die Coat	**Q1-4939**
Die Attach	**P86A**
Wire Material	**Gold**
Wire Diameter	**1.0 Mils**

RELIABILITY INFORMATION:

RELIABILITY TESTS:

Method & Condition	REJ/SS	Comments:
OPERATING LIFETEST [1] MIL-STD-883; 1005 Tj =+150 °C, 1008 hrs (P-DIP)	**0/135**	**FIT = 87 MTTF =1.2 x 10^6 hrs**
Autoclave 121°C, 100%RH, 2atm, 240 hrs	**0/135**	
HAST +140°C, 90% RH, 25% Bias, 48 Hrs (P-DIP)	**0/75**	
Temperature Cycle MIL-STD-883;1010 Cond. C, 1,000 cycles -65°Cto +150°C (TSSOP)	**0/135**	
Thermal Shock (TMSK) MIL-STD-883;1011.7 Cond. C, 500 cycles -65°C to +150°C (P-DIP)	**0/135**	

1 FIT & MTTF are based on 55oC operating temperature, 0.7eV activation energy and 60% confidence level.

ESD Sensitivity

Method & Condition	Voltage Threshold	Classification
ADI0082 - REV. A Human Body Model	**> 2000**	**Class 2**

Note: ADI measures ESD results using a stringent test procedure based primarily on ANSI/ESD Association Standard S5.1. Any comparison with another supplier's results should ensure that the same ESD test procedure has been used.

REVISION HISTORY

The revision history for this document may be reviewed by clicking the "Rev History" button at the top of the Adlib Index Window. The revision history for changes prior to the introduction of Adlib, if applicable, are available from Document Control.
