

SUBSYSTEM SAFETY HAZARD ANALYSIS REPORT

FOR THE

SAM POWER SUPPLY

Prepared by

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## 1.0 INTRODUCTION AND SUMMARY

This document presents the Sample Company Subsystem Safety Hazard Analysis (SSHA) Report performed on the SAM Power Supply. It was prepared in accordance with MIL-STD-882B, "System Safety Program Requirements", Paragraphs 5.5.1.2 and 5.5.1.3.

The results of this analysis indicate that the SAM Power Supply and its assemblies meet the safe operation requirements of its Procurement Specification. This statement is fully supported by the Safety Hazard Analysis (SSHA) data tables presented in the appendix A of this report.

*This example is not a complete report. The remaining text and detailed appendix data tables will be provided upon the purchase of this report. Continue to scroll down to view example appendix data tables.*

## APPENDIX A

### Subsystem Safety Hazard Analysis Tables for the SAM Power Supply

SUBSYSTEM HAZARD ANALYSIS

System: SAM Power Supply  
 Indenture Level: 3  
 Reference Drawing: Converter, 30684941  
 Mission: Space, Flight (SF)

Date:  
 Sheet: 1 A  
 Compiled By: J. Smith  
 Approved By: M. Anderson

Ident. No.	Item/Functional Identification (Nomenclature)	Function	Part Failure Modes and Causes	Part Mode Failure Rate ( $\lambda_p$ )	System Event Phase	Primary Part Failure Mode			Hazard Risk Index (HRI)	Recommended Action	
						Local Effects	Next Higher Level	End Effects		Failure Detection Method	Compensating Provisions
Q1-1	Transistor 2N2907A Low Frequency Bipolar (NPN/PNP)	Switch Transistor Driver	Open	1.10E-10	All Operational Modes	5V Regulator Inoperative	Loss of 5 Volts	Converter Inoperative	III E	No 1553 Response	Redundant Circuits
Q1-2			Short	1.10E-10	All Operational Modes	5V Regulator Full On	26V on 5V Line. Parts Damaged	Open Primary Circuit Breaker	IV E	No 1553 Response	Redundant Circuits
CR1-1	Diode 1N4148-1 General Purpose	Overvoltage Protection	Open	1.40E-10	All Operational Modes	Loss of Overvoltage Protection to U19 Analog Channel 7	Possible Damage to U19 Analog Channel 7	Possible Converter Malfunction	III E	Periodic Test	Redundant Circuits
CR1-2			Short	1.40E-10	All Operational Modes	5V Applied U19 analog Channel 7	U19 Analog Channel 7 Inoperative	Converter Inoperative	III E	Periodic Test	Redundant Circuits
R1-1	Resistor RCR07G1501FR Insulated Fixed Film	Current Limit	Open	3.97E-09	All Operational Modes	Q1,Q2,Q3,U2 Inoperative	Current Test Inoperative	Converter Malfunction	III E	Periodic Test	Redundant Circuits
R1-2			Short	3.97E-09	All Operational Modes	Possible Damage to Q2	Current Test Inoperative	Converter Malfunction	III E	Periodic Test	Redundant Circuits
C1-1	Capacitor CKR06BX104KP General Purpose Ceramic, ER	Feedback Capacitor	Open	6.89E-09	All Operational Modes	Malfunction of Active Low Power Filter	Degraded Filtering for U19, Analog Channel 7	Possible Converter Malfunction	III E	Periodic Test	Redundant Circuits
C1-2			Short	6.89E-09	All Operational Modes	Active Low Power Filter Inoperative	Loss of Signal to U19 Analog Ch. 7	Converter Inoperative	IV E	Periodic Test	Redundant Circuits
L1-1	Filter MIL-T-27/336-39 Inductor	Input Filter Inductor	Open	2.51E-09	All Operational Modes	Loss of 26V Power	Regulator Inoperative	Converter Inoperative	III E	No 1553 Response	Redundant Circuits
L1-2			Short	2.51E-09	All Operational Modes	Degraded 2V Filtering	Possible EMI on 26V Line	Possible Converter Malfunction	III E	Periodic Test	Redundant Circuits