USA Ground Operations CIL Sheet

Critical Item: 100 Base-TX Fast Ethernet Module
Criticality Category: 1
NASA Part No: None
Total Quantity: 1
Mfg/Part No: Cisco Systems Inc. / WS-X2811
System: Checkout and Launch Control System

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
52452A6A1	1	HMF	L72-5300	090.10	84K09908-002 / 16

Function:

Interprets Fast Ethernet frames from the BIN and then passes them to the chassis where they are converted to ATM cells and vice-versa.

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
01IT03-002.008 Corruption of Data	Internal Component or Software Failure Invalid data would be recorded to the SDC and/or be presented to the console operator. Making a critical decision based on invalid data could result in loss of life and/or vehicle.	None Seconds	1

ACCEPTANCE RATIONALE

Design:

- Worldwide Standards Compliance
  - International
    - International Electrotechnical Commission IEC 950, Safety of Information Technology Equipment
  - United States
    - Federal Communications Commission (FCC) Part 15, Class B, Electromagnetic Compatibility (EMC)
    - Underwriters Laboratory (UL) Listed UL-1950, Low Voltage Safety
  - Canada
    - Canadian Standards Association CSA C22.2 No. 60950, Safety of Information Technology Equipmer
  - Europe
    - European Norm EN50081-1 and EN50082-1, EMC Emissions and Immunity respectively (CE Mark)
    - European Norm EN60950, Low Voltage Safety (CE Mark)
  - Japan
    - Voluntary Control Council for Interference (VCCI) from Information Technology Equipment compatibl Class B, EMC

- Designed to industry standards.

- Employs multiple levels of error checking utilizing Cyclic Redundancy Checks (CRCs) and checksums to reduce the likelihood of corruption of data during transmission between endstations.

- All input power is delivered to the hardware through CLCS Power Distribution Chassis (PDCs) which emplo Electromagnetic Interference (EMI)/Radio Frequency Interference (RFI) filtering and Transient Voltage Surge Suppression (TVSS).

Test:

- Under the provisions set forth in 84K00071 "CLCS Hardware Development Plan" the following tests were performed:

  - 84K07290-004-02 "Test Specification, Receiving Inspection Test (RIT) Procedure for Cisco Catalyst 2820 Switch" - a unit test.

- 84K03504 "Hardware Specification and Design Verification Test (DVT), Network Switches" - a unit design test.

- 84K07210-010-02 "Hypergolic Maintenance Facility (HMF) Hardware Installation Test (HIT)" - an integrated connectivity test.

- 84K07211 "Hypergolic Maintenance Facility (HMF) Hardware Validation Test (HVT)" - an integrated functionality test.

• CLCS HMF Level 5 User Acceptance Testing as outlined in 84K00190, "CLCS Certification Plan".

Inspection:

• No inspections or preventative maintenance is accomplished on this item.

Failure History:

• Current data on test failures, unexplained anomalies, and other failures experienced during ground processi activities can be found in the PRACA database. The PRACA database was researched and no data was foui on this component in the critical failure mode.

Operational Use:

Correcting Action	**Timeframe**
There is no action which can be taken to mitigate the failure effect.	Since no correcting action is available, timeframe does not apply.