

**USA Ground Operations CIL Sheet**

**Critical Item:** SDC SODN Switch  
**NASA Part No:** None  
**Mfg/Part No:** Cisco / 2828  
**System:** Shuttle Data Center

**Criticality Category:** 1  
**Total Quantity:** 1

Find No.	Qty	Area	PMN	Baseline	Drawing / Sheet
51828A10	1	LCC	L72-6010	091.10	84K06003 / 8

**Function:**

Performs media conversion between Ethernet and FDDI for retrievals from a non-firing room set.

Failure Mode No. Failure Mode	Failure Cause Failure Effect	Detection Method Time to Effect	Crit Cat
09IT09-010.002 Corruption of data	Electrical failure / product defect / network congestion / software error  Possible presentation of invalid data upon user retrieval. Making a critical decision based on invalid data could result in loss of life/vehicle.	None  Seconds	1

**ACCEPTANCE RATIONALE****Design:**

- The equipment is designed to industry standards.
- UL, CSA, FCC, and CE approved.
- Equipped with shared memory architecture to eliminate packet loss.
- Utilizes Dual Ring, Dual Homed network configuration for superior reliability and robustness, Token Passing for preventing data corruption due to data transmission collisions and multiple layers of error checking to detect corrupt data packets. Reference document number 84K06007, Shuttle Data Center (SDC) DCR White Paper, for additional SDC network communication attributes and features.

**Test:**

- Validation testing performed prior to operational use.

**Inspection:**

- There are no inspections performed.

**Failure History:**

- Current data on test failures, unexplained anomalies, and other failures experienced during ground processing activities can be found in the PRACA database. The PRACA database was researched and no data was found 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.