CRITICALITY ITEM LIST

PROJECT:

ITEM NOMENCLATURE: INTERFACE CABLE

ASSEMBLY: CCEM

ASSEMBLY P/N: SED16102311-301

DATE: January 4, 1989

FEMA REF	REV	NAME, QTY., DRAWING REF. DESIGN	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	HDWR/FUNC 3/2RB CRITICALITY	RATIONALE FOR ACCEPTANCE
06-3	A	Interface Cable SED16102311-301 QTY-1	MODE: Fails to pass audio signals. Loss of earphone and/or microphone functions. CAUSE(S): Electrical wire failure (open or short circuit)	ITEM: Loss of communication INTERFACE: None MISSION: Loss of EVA CREW/VEHICLE: None		DESIGN FEATURES: The interface cable wiring meets the requirements of NSTS 8080, Standard 95. The wiring is enclosed in Nomax sleeving with a line inside with the wires to provide strain relief. The sleeving and line is attached to the stowing module and interface connector. Any force applied will be on the sleeving and line, and not the wires.
04-3		Interconnector wiring QTY-2				

CRITICAL ITEM LIST

PROJECT: EMU

SYSTEM: CCA

ASSEMBLY NOMENCLATURE: INTERFACE CABLE

ASSEMBLY P/N: SEU16102311-301

DATE: January 4, 1989

FEMA REF	REV	NAME, QTY, DRAWING REF. DESIGN	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	MDWR/FORC 3/2MB CRITICALITY	RATIONALE FOR ACCEPTANCE
06-1	A					ACCEPTANCE TEST: The acceptance testing verified that all measurable performance characteristics meet the requirements of the end-item specifications. Acceptance testing were performed on the end-item (CCEM).
04-1						

PROJECT: EMU

ASSEMBLY NOMENCLATURE: MICROPHONE ASSEMBLY

ASSEMBLY P/N: SCU610231I-301

DATE January 4, 1989

FEMA REF	REV	NAME, QTY., DRAWING REF. DESIGN	FAILURE MODE AND CAUSE	FAILURE EFFECT ON EMU ITEM	HDWR/FUNC 3/2 OR CRITICALITY QUALIFICATION TESTS:	RATIONALE FOR ACCEPTANCE
06-1 04-1	A				Humidity: The CCEM shall be tested at a 100 percent relative humidity at 35 degrees Fahrenheit dry bulb, and 8 percent relative humidity at 90 degrees Fahrenheit for 9 bulk (24 hours), and 90 percent relative humidity at 90 degrees Fahrenheit for 9 hours. Refer to MIL-STD-810D (Environmental Test Methods for Aerospace and Ground Equipment). The certification of the CCEM for humidity shall be accomplished by test and analysis. The 8 to 100 percent humidity test condition shall be performed to the extent allowed by the test chamber and supplemented by an analysis for the delta between the test conditions and test requirements. The CCEM shall be operating during the humidity test. Pressure: The pressure test shall be from 20 psia for 8 hours using dry air. (Oxygen atmosphere will be used in the EMU manned tests.) The CCEM shall be operating during this test.	

CRITIC _ ITEM LIST

PROJECT: END

NOMENCLATURE: MICROPHONE ASSEMBLY

ASSEMBLY P/N: SED16102311-301

DATE: January 4, 1989

FEMA REF	REV	NAME, QTY., DRAWING REF. DESIGN	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	HDWR/FUNC 3/2RB CRITICALITY	RATIONALE FOR ACCEPTANCE
06-3	A					EMI: The EMI test, per NSTS-SL-E-0002B (Specification, Electromagnetic Interference Characterstics, requirements for equipment i the Space Shuttle program), shall be performed for power line conducted susceptibility and RF radiated susceptibility. (Power-line interference and RF interference tests are n required since the CCEM design cannot, by analysis, generate spurious EMI signals.) The following tests (Class 1 equipment) shal apply: A. Conducted susceptibility (CS01) - Limit to be 1.2 VRMS per Figure 2 of ICDS-HS0-4-0008-0C (Space Shuttle Extravehicular Mobility Unit/Extravehicular Communicator Interface Document). B. Conducted susceptibility (CS02) - Limit to be 0.22 VRMS. C. Conducted susceptibility (CS06) - Limit to be 51V per Figures 3 and 4 of ICD-HS0-4-0008-0C. D. Radiated susceptibility (RS03).
04-1						

CRITICAL ITEM LIST

PROJECT: EMU

NOMENCLATURE: MICROPHONE ASSEMBLY (Cont.)

ASSEMBLY P/N: SED16101211-301

DATE: January 4, 1989

FEMA REF	REV	NAME, QTY., DRAWING REF. DESIGN	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	HDWR/FUNC 3/2HB CRITICALITY	RATIONALE FOR ACCEPTANCE
06-1 04-1	A					(1) Radiated susceptibility in the UHF range, 250/MHZ to 300 MHZ: the limit shall be 11 volts/meter. (2) Radiated susceptibility in the S-Band range, 2100 MHZ to 2300 MHZ: the limit shall be 11 volts/meter. E. Radiated susceptibility for Payload to Orbiter per G1095 R1 and R2. The limits shall be defined the figure in G1095R2.

CRITICAL ITEM LIST

PROJECT: EMU

NOMENCLATURE: MICROPHONE ASSEMBLY

ASSEMBLY P/N: SED16102111-301

DATE: January 4, 1989

FLHA REF	REV	NAME, QTY., DRAWING REF. DESIGN	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	HOWT/FOMC 3/2RB CRITICALITY	RATIONALE FOR ACCEPTANCE
06-3	A					EMU/ORBITER INTERFACE TEST
04-1						The CCEM shall be interfaced and tested with the Extravehicular Mobility Unit (EMU) in the environments under which it is required to operate. Tests shall be performed in the altitude chamber during a manned test. It shall also be interfaced with the Space Shuttle Orbiter and tested to insure proper operation in that environment.

CRITICAL ITEM LIST

PROJECT: EMU

NOMENCLATURE: MICROPHONE ASSEMBLY

ASSEMBLY P/N: SED16U2311-301

DATE: January 4, 1989

FEMA REF	REV	NAME, QTY., DRAWING REF. DESIGN	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	HOWR/FUNC 3/2R CRITICALITY QA INSPECTION	RATIONALE FOR ACCEPTANCE
06-3	A					The CCEM is manufactured, assembled, and tested to Flight-approved JSC drawings and procedures. The drawings have been approved by Quality Engineering, Materials, and Structures, and they are maintained by the JSC drawings control center. Quality controls are exercised throughout design procurement, planning, processing, fabrication, assembly qualification and acceptance testing. Mandatory inspection points are employed as appropriate at various levels of assembly and tests. Receiving inspection verifies that the parts and components received are as identified in the procurement documents, that no damage has occurred during shipment, and that appropriate data has been received which provides adequate traceability information and identifies acceptable parts. Parts are inspected through manufacture and assembly as appropriate to the manufacturing stage completed.
04-3						

CRITICAL ITEM LIST

PROJECT: EMU

NOMENCLATURE: MICROPHONE ASSEMBLY

ASSEMBLY P/N: SED61Q2311-301

DATE: January 4, 1989

FEMA REF	REV	NAME, QTY., DRAWING REF. DESIGN	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	HDWR/FUNC 3/2HB CRITICALITY	RATIONALE FOR ACCEPTANCE
06-1	A					QA INSPECTION (Continued): Pre-acceptance test inspection, which includes an inspection of the lower assemblie on completion, a verification of the design etc., (mandatory inspection points). A performance test, EE2-06-023, will be performed on each CCEM prior to flying on a mission. The performance test will check parameter of the CCEM.
04-1						