

MIL-STD-1633 (EC)

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MILITARY STANDARD

INTERFACE STANDARD FOR SHIPBOARD EMISSION MONITOR-CONTROL SET, AN/SSQ-82 (V) MUTE SYSTEM



NO DELIVERABLE DATA REQUIRED BY THIS DOCUMENT

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DEPARTMENT OF THE NAVY
NAVAL ELECTRONIC SYSTEMS COMMAND
Washington, D.C. 20363

Interface Standard for Shipboard Emission, Monitor-Control Set,
AN/SSQ-82(V) MUTE System.

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1. This Military Standard is approved for use by the Naval Electronic Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.
2. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, Naval Electronic Systems Command, ELEX 8111, Department of the Navy, Washington, D.C. 20363, by using the self-addressed Standardization Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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FOREWORD

1. It is essential that all acoustic, electromagnetic, and optical emitters currently employed and planned for MUTE configured ships be interfaced with the AN/SSQ-82(V) MUTE system. This standard describes the functional operation characteristics of the AN/SSQ-82(V) and discusses the interface requirements.

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1. SCOPE

1.1 Purpose. This standard establishes the electrical and mechanical interface required to bring all acoustic, electromagnetic, and optical emitters currently deployed on and planned for MUTE configured ships into conformance with the requirements of the AN/SSQ-82(V) MUTE System. The AN/SSQ-82(V) provides discretely coded signals to all designated shipboard emitters for the purpose of controlling their radiation status. The AN/SSQ-82(V) also monitors the radiation status by observing discrete circuit status within the emitter.

1.2 Applicability. This standard, when invoked in a specification or statement of work, shall apply to all acoustic, electromagnetic, and optical emitters for MUTE configured ships which must interface with the AN/SSQ-82(V) MUTE System.

2. REFERENCED DOCUMENTS

2.1 Issues of documents. Unless otherwise specified, the following standard of the issue listed in the current Department of Defense Index of Specifications and Standards (DODISS) and the supplement thereto (if applicable), forms a part of this standard to the extent specified herein.

STANDARDS

MILITARY

MS-3114

Connector, Receptacle, Electric,
Series 1, Solder Type, Jam Nut
Mounting Bayonet Coupling

(Copies of the standard required by contractors in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

3. DEFINITIONS

3.1 Acknowledge. The acknowledge condition is the indication received by MUTE control when the transmitter assumes DENY status.

3.2 DENY. DENY is the control function signal of the MUTE system silencing a transmitter.

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3.3 Multiple Unit for Transmission Elimination (MUTE). MUTE is the Navy system capable of control and monitoring all permanently installed electromagnetic, acoustic and optical emitters on board Navy ships. Its purpose is to provide centralized control and monitoring of all shipboard emitters.

3.4 PERMIT. PERMIT is the control function signal of the MUTE system which returns the transmitters to normal operating status.

4. INTERFACE CHARACTERISTICS

4.1 AN/SSQ-82(V) functional operation. The AN/SSQ-82(V) functions are specified in 4.1.1 through 4.1.4.

4.1.1 Control function. The control function of the AN/SSQ-82(V) requires the capability to silence a transmitter when so commanded through the interface (DENY and PERMIT are the control function signals.) The silencing should occur as soon as possible, but no longer than 5 seconds. When cycled from DENY to PERMIT, the system should return to its normal operating status, and if possible, with no operator interaction requirement.

4.1.2 Monitor function. The monitor function requires that the radiator (transmitter) provide an indication of whether or not it is on the air. It does not necessarily require actual sampling of radiated energy. A strategic circuit point may be chosen within the equipment that will reflect the emission status. If a given condition exists at that point, the the transmitter is radiating; if not, then the transmitter is considered silent.

4.1.3 Acknowledge function. When the transmitter is in the DENY status, a separately generated signal shall be sent back to MUTE control which will provide an acknowledge indication. This will indicate that a DENY command was received and that the transmitter keying circuit has been disabled.

4.1.4 Failsafe operation. Loss of direct circuit power or an open signal cable from the AN/SSQ-82(V) control shall result in a PERMIT condition to the transmitter.

4.2 MUTE interface requirements. Interface requirements are specified in 4.2.1 and 4.2.2.

4.2.1 Connector type and location. The MUTE system provides one dedicated input/output connector for the purpose of interfacing each equipment. The connector is a type

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MS-3114E-12-10S connector in accordance with MS 3114. The mating plug and cable will be supplied as part of the AN/SSQ-82(V) system.

4.2.2 Connector MS-3114-12-10S pin assignment. Pin functions on the MUTE Interface Connector are assigned as follows:

<u>PIN</u>	<u>FUNCTION</u>
A	DENY command signal (+12 volts direct current (VDC) at a 100 mA maximum) that silences the emitter until +12 volt is removed.
B	DC return
C	Short circuited between C and D in the emitter provides a closed circuit when mating plug is connected
E	Voltage source (+12 VDC at 2 mA maximum) for PIN F DENY command acknowledgement
F	DENY command acknowledge (+12 VDC) from the emitter. Voltage may be from PIN E via an interface relay contact closing on DENY command signal.
G	Radiates indicate signal (+2 to +50 VDC at 5mA maximum) from the emitter. Voltage may be from Pin H via an existing relay contact closing whenever emitter is radiated.
H	Voltage source (+12 VDC at 2 mA maximum.)
J	AN/SSQ-82(V) ground should be connected to emitter ground.

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