

PURCHASE DESCRIPTION

SOUND LEVEL METER 130 DB

SCAT: 4737

Solicitation No: SPRMM116RYN68

- 1.0 **GENERAL** This procurement requires a Sound Level Meter to measure decibel noise levels.
- 2.0 **CLASSIFICATION** The equipment shall meet the Class 2 performance requirements of MIL-PRF-28800 for Navy shipboard, submarine, and shore applications.
- 3.0 **OPERATIONAL REQUIREMENTS** The specifications provided below are the minimum requirements and accuracies that will meet the Government's need. The meter shall at least meet these requirements and accuracies and may provide better performance.
- 3.1 Sound Level Range 40 to 130 dB minimum
- 3.2 Sound level accuracy +/-1.5 dB
- 3.3 Frequency range 31.5 Hz to 8 kHz
- 3.4 Weighting A and C
- 3.5 Output >0.65 Vrms behind 600  $\Omega$  with meter at full scale; will drive oscilloscope or low- impedance headphones
- 3.6 Display Full scale sound-level range set by level-range control, 10 dB portion of scale for sound-level comparisons on 2 ranges, and low end of sound-level range set by level- range control or auto range capability.
- 4.0 **GENERAL REQUIREMENTS**
- 4.1 Power Source MIL-PRF-28800 nominal power source requirements are invoked. The equipment shall be battery operated to maintain portability. Operating time on battery power shall be at least 50 hours.
- 4.2 Battery Restrictions Per MIL-PRF-28800, lithium and mercury batteries are prohibited without prior authorization. A request for approval for the use of Lithium and Mercury batteries shall be submitted with production lot delivery, after contract award. Approval shall apply only to the specific model proposed.

Exception: Per Naval Ordnance Safety and Security Activity (NOSSA), the use of Lithium primary (non-rechargeable) coin cell batteries meeting the following criteria

is authorized for Navy personnel and on Navy activities, including surface ships, submarines, and aircraft:

- a. Unmodified, commercial-off-the-shelf (COTS) item;
- b. Used in single-cell configuration;
- c. Maximum nominal output of 3 Volts;
- d. Maximum rated capacity of 1 Amp-hour (Ah).

4.3 Environmental

4.3.1 Operating temperature: 0°C to +50°C

4.3.2 Storage temperature: -40°C to +60°C, with batteries removed.

4.3.3 Operating Humidity: 5% to 95% RH.

4.4 Weight 0.48 kg (13 oz.) excluding accessories

4.5 Dimensions 27.9 cm H x 9.2 cm W x 5.3 cm D (11" x 3.63" x 2.09") nominal

4.6 Accessories The equipment shall be delivered with a carrying case as described in section 4.7.

4.7 Enclosure An enclosure provides protection for the contained system components during storage, handling, and use. If the equipment is provided within an integrated transit case capable of housing all provided accessories, a secondary transit case is not specified. If the instrument enclosure does not provide accommodations for the provided accessories, then a transit case shall be provided to house the instrument, hard-copy operating instructions, power cord/adapter, and all provided accessories

4.8 Technical Manual Equipment categorized as "Repairable". The maintenance philosophy for this unit shall be up to level 2 only (per MIL-PRF-28800F) and shall require maintenance fault isolation to the module level of the unit. The technical manual shall provide necessary guidance to perform level 2 maintenance. A Use and Installation manual (Operator's Manual, level 1) shall be provided separately.

Information required for performance verification shall include:

- Instructions to verify equipment performance,
- List the equipment required for verification tests,
- Step-by-step instructions for test connections,
- Acceptable result criteria,
- Calibration information,
- Self-test routines.

Maintenance information shall include:

- Parts lists to the component level,
- Schematics and component layout drawings,
- Block and schematic diagrams.
- List of required test equipment and connection diagrams, and
- Sequential instructions for disassembly, repair, replacement, and reassembly shall be provided.

- Board level maintenance and troubleshooting information,
- Step-by-step instructions for troubleshooting and fault isolation,
- Expected signal levels,
- Test data sheets will be included, and as required,
- The instructions will define localizing a defective circuit card.

Parts lists shall include:

- Parts lists shall be shown on illustrations or a separate listing that includes an index or reference to other illustrations.
- Part number, cage code, and generic description.

The technical manual shall be provided in both printed and electronic formats. The printed format shall be otherwise normally provided. The electronic format shall be in Portable Document Format (PDF) - ISO 32000-1:2008. Two separate CD/DVDs are required, one shall contain the Use and Installation manual and one shall contain the Maintenance and Service manual.

The statement of copyright release:

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shall be printed in the first two pages of each technical manual and on the surface of the CD/DVD supplied.

- 4.9 Training Materials The equipment will be provided with basic operation and maintenance training, provided on non-volatile electronic medium at a minimum (CD, or DVD), and shall be accessible using freeware such as Adobe Reader® or similar. Flash drives (volatile memory medium) shall not be included with the equipment.
- 4.10 Calibration The calibration interval shall be 12 months minimum. The equipment shall be within all accuracy requirements specified herein, with an 85% or greater confidence factor following its full calibration interval.
- 4.10.1 Source Codes: Any electronic or software codes necessary to communicate with, modify internal operating parameters, or impose calibration correction factors on any proposed instrument model shall be provided to the Government at no additional cost.
- 4.11 Additional Requirements As per MIL-PRF-28800F the equipment identification plate shall be permanently affixed to the equipment. Package labeling and other additional requirements shall be specified in the CDRL of the solicitation.