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AMERICAN NATIONAL STANDARD **METHOD FOR MEASURING THE PERFORMANCE OF NOISE DISCRIMINATING AND NOISE CANCELING MICROPHONES**

ANSI S1.16-2000

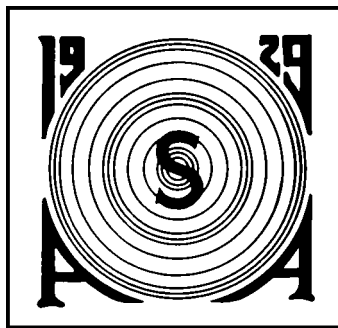
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American National Standard

Method for Measuring the Performance of Noise Discriminating and Noise Canceling Microphones

Secretariat

Acoustical Society of America

Approved 19 May 2000

American National Standards Institute, Inc.

Abstract

This American National Standard describes procedures for measuring the performance of noise discriminating and noise canceling microphones. The signal-to-noise ratio is measured at 1/3 octave band intervals with the desired test source in a diffuse noise field. The noise canceling performance of the microphone is defined as the noise canceling index (NCI), a weighted summation of the signal-to-noise ratios. The NCI of the microphone under test can be compared to the required baseline NCI of a laboratory standard pressure microphone.

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Foreword

[This Foreword is for information only and is not an integral part of *American National Standard Method for Measuring the Performance of Noise Discriminating and Noise Canceling Microphones*, ANSI S1.16-2000.]

Noise canceling microphones are used in numerous applications where improved signal-to-noise ratios are important for speech communication and/or other audio applications. Arrays of microphones connected together by hardware and/or software can also improve the signal-to-noise ratio. This Standard addresses the need to have a standard methodology to measure the performance of these types of devices.

This Standard was developed under the jurisdiction of Accredited Standards Committee S1, Acoustics, which has the following scope:

Standards, specifications, methods of measurement and test, and terminology in the fields of physical acoustics including architectural acoustics, electroacoustics, sonics and ultrasonics, and underwater sound, but excluding those aspects which pertain to biological safety, tolerance, and comfort.

At the time this Standard was submitted to Accredited Standards Committee S1, Acoustics, for approval, the membership was as follows:

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