13.1 Abbreviations and Terminology

Abbreviations

ANSI	American National Standards Institute
dB	decibels
f	frequency, cycles/sec
Hz	Hertz
nm	10^{-9} meters
P	sound power
p	pressure
pW	10^{-12} Watts
x	RMS value of quantity
x_o	reference value of quantity
μPa	10^{-6} Pascals

Terminology

decade	band with the upper frequency x10 that of thelower.
decibels	measure of a magnitude, $dB = 10log_{10}(\text{mag})$.
far field	beyond the near field (region where sound level drops -6 *dB* as distance from the source doubles).
Hertz	frequency in cycles/second.
narrow band	band whose width is less than one-third octave but less than 1% of the center frequency near field range within a distance equal to the wavelength of the lowest frequency emitted or twice the greatest dimension of the subject.
octave	a band with the upper freq exactly twice the lower freq. (common octaves include .0375-.075, .075-.15, 15-.3, .6-1.2, 1.2-2.4, 2.4-4.8, 4.8-9.6 k*Hz*).
pink noise	has equal energy in each octave from 20 to 20,000 Hz, or with an energy content inversely proportional to frequency.
random noise	does not have a uniform frequency spectrum and has an amplitude, as a function of time, consis tent with a Gaussian distribution curve.
third-octave	highest frequency =1.26 x lower frequency (ratio= $2^{1/3}$)
white noise	has a constant spectrum level over the entire band of audible frequencies (need not be random).