

METHOD, APPARATUS AND COMPUTER PROGRAM FOR CALCULATING AND
ADJUSTING THE PERCEIVED LOUDNESS OF AN AUDIO SIGNAL

Abstract

One or a combination of two or more specific loudness model functions selected from a group of two or more of such functions are employed in calculating the perceptual loudness of an audio signal. The function or functions may be selected, for example, by a measure of the degree to which the audio signal is narrowband or wideband. Alternatively or with such a selection from a group of functions, a gain value $G[t]$ is calculated, which gain, when applied to the audio signal, results in a perceived loudness substantially the same as a reference loudness. The gain calculating employs an iterative processing loop that includes the perceptual loudness calculation.

Figure 3