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(54) Title: STEREO WIDENING OVER ARBITRARILY-CONFIGURED LOUDSPEAKERS

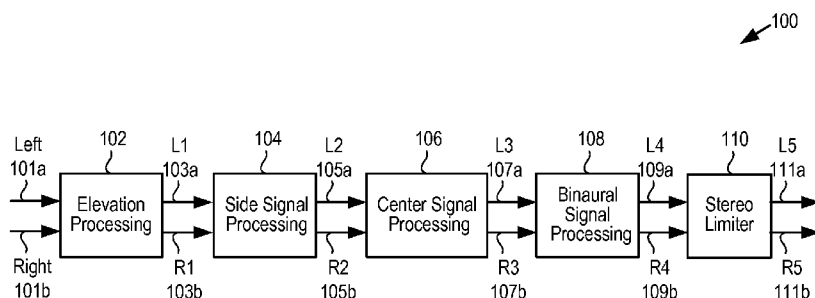


Figure 1

(57) Abstract: A system and method are disclosed for effective and simple stereo widening over arbitrarily-configured speakers and its real-time implementation. According to one embodiment, the system includes five processing units: (1) elevation processing unit; (2) side signal or difference signal processing unit; (3) center signal processing unit; (4) binaural signal processing unit; and (5) stereo limiter (to prevent the clipping) unit. Any of the five processing units may be included or omitted depending on the application. In general, embodiments of the present invention provide effective and simple stereo widening schemes with good audio quality results, but without having substantial requirements on the speakers' positional configuration. For example, the proposed schemes can apply to both symmetric and non-symmetric stereo loudspeakers.