

Title (en)

CIRCUIT ARRANGEMENT FOR CORRECTING LINEAR AND NON-LINEAR TRANSFER CHARACTERISTICS OF ELECTROACOUSTIC TRANSDUCERS

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Application

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DE 4111884 A 19910409

Abstract (en)

[origin: EP0508392A2] The invention relates to a circuit arrangement for correcting linear and non-linear transfer characteristics of electroacoustic transducers within the entire range of modulation (small- and large-signal behaviour), consisting of an electrical equaliser network which is coupled to the connecting terminals of the transducer and an aid, which is connected either temporarily or continuously, for matching the equaliser network to the transducer. The equaliser network (1) consists of a chain circuit of transmission elements, at least one transmission element (two-terminal network Z) exhibiting a non-linear transfer characteristic between its input and output port. The non-linear equaliser network contains linear transmission systems, multiplicative and additive logic elements and non-linear volatile two-terminal networks which are interconnected in accordance with the balanced active structure of the transducer. The parameters of the non-linear volatile two-terminal networks are variable by means of control signals (39, 40, 41). The matching aid activated only for matching purposes contains a main controller (89), a generating part (75) for generating an excitation signal and an analysis part (76) for converting the measurement signal, picked up via a sensor (3), into control signals (39, 40, 41) for automatically setting the parameters of the equaliser network. The equaliser network matched to the transducer (2) by means of this aid changes the linear transfer characteristics and reduces the non-linear distortions of the overall system. The invention is characterised most clearly by Figure 22. <IMAGE>

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