

ABSTRACT

An expander circuit for decoding audio signals which were encoded in accordance with the BTSC multichannel sound system standard including DBX companding is presented. A wideband expander circuit (44) is utilized and a DBX expander can be accommodated. The wideband expander circuit is provided with a signal path having an input LPF (low pass filter)(48), a stereo difference signal (L-R) demodulator (52), a second LPF (10), and a voltage controlled amplifier (VCA)(18), the gain of which is controlled by a control signal (58) derived from the demodulated difference signal which has been operated on by a bandpass filter (BPF) (20) and an integrating peak detector (54,56). The output of the VCA (18) is provided to a deemphasis network (24) before being fed to a decoder matrix (38) for combining with the sum stereo signal (L+R) for reconstructing the original L and R signals. When a DBX expander (60) is connected, the DBX expander (60) is substituted in place of the deemphasis network (24), the VCA control signal (58), which provides the wideband expansion, is overridden by a predetermined voltage, the BPF (20) is disabled, and the input is switched to bypass the input LPF (48). According to aspects of the present invention, the disablement of the BPF (20) actuates the switching of the input to bypass the input LPF (48).

---

This Sheet Has Been Replaced