

MULTI-CHANNEL AUDIO DECODER, MULTI-CHANNEL AUDIO ENCODER, METHODS
AND COMPUTER PROGRAM USING A RESIDUAL-SIGNAL-BASED ADJUSTMENT OF
A CONTRIBUTION OF A DECORRELATED SIGNAL

5 ABSTRACT

10 A multi-channel audio decoder for providing at least two output audio signals on the basis
of an encoded representation is configured to perform a weighted combination of a
downmix signal, a decorrelated signal and a residual signal, to obtain one of the output
audio signals. The multi-channel audio decoder is configured to determine a weight
describing a contribution of the decorrelated signal in the weighted combination in
dependence on the residual signal. A multi-channel audio encoder for providing an
15 encoded representation of a multi-channel audio signal is configured to obtain a downmix
signal on the basis of the multi-channel audio signal, to provide parameters describing
dependencies between the channels of the multi-channel audio signal, and to provide a
residual signal. The multi-channel audio encoder is configured to vary an amount of
residual signal included into the encoded representation in dependence on the multi-
channel audio signal.

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Fig. 2