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(71) Applicant: **TEXAS INSTRUMENTS
INCORPORATED**
Dallas, TX 75265 (US)

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(72) Inventor: **McCree, Alan V**
75248, Dallas (US)

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(74) Representative: **Holt, Michael et al**
Texas Instruments Ltd.,
PO Box 5069
Northampton, Northamptonshire NN4 7ZE (GB)

(54) **Wideband speech coding system and method**

(57) A speech encoder/decoder for wideband speech with a partitioning of wideband into lowband and highband, and convenient coding of the lowband. The narrowband coding may be an LP-based voiceband

coder; and the high band coding may include spectral reversal so it can effectively use the voiceband coder's quantizer. The embedded lowband may be extracted for a lower bit rate decoder.

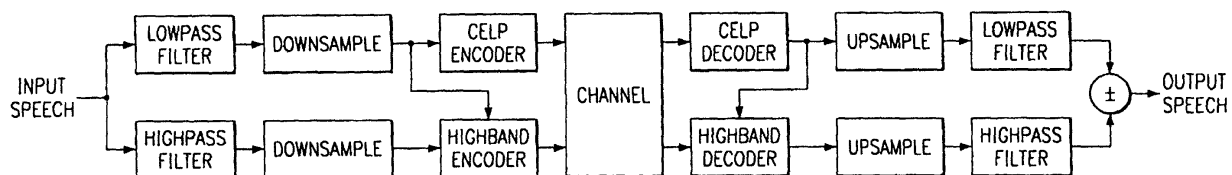


FIG. 1a



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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
P,X	MCCREE A ED - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS: "A 14 kb/s wideband speech coder with a parametric highband model" 2000 IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING. PROCEEDINGS. (ICASSP). ISTANBUL, TURKEY, JUNE 5-9, 2000, IEEE INTERNATIONAL CONFERENCE ON ACOUSTICS, SPEECH, AND SIGNAL PROCESSING (ICASSP), NEW YORK, NY : IEEE, US, vol. VOL. 2 OF 6, 5 June 2000 (2000-06-05), pages II1153-II1156, XP002162018 ISBN: 0-7803-6294-2 * the whole document *	1-4	G10L21/02 G10L19/02
A	TIAN W ET AL: "LOW-DELAY SUBBAND CELP CODING FOR WIDEBAND SPEECH" 1996 IEEE TENCON. DIGITAL SIGNAL PROCESSING APPLICATIONS PROCEEDINGS. PERTH, NOV. 26 - 29, 1996, IEEE TENCON - DIGITAL SIGNAL PROCESSING APPLICATIONS, NEW YORK, NY : IEEE, US, vol. VOL. 1, 26 November 1996 (1996-11-26), pages 189-194, XP000781677 ISBN: 0-7803-3680-1 * page 190, left-hand column, line 13 - line 16; figure 1 *	1-4	TECHNICAL FIELDS SEARCHED (Int.Cl.7) G10L
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 21 July 2004	Examiner De Vos, L
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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Application Number
EP 04 10 0553

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	ADIL BENYASSINE ET AL INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS: "MULTIBAND CELP CODING OF SPEECH" PROCEEDINGS OF THE ASILOMAR CONFERENCE ON SIGNALS, SYSTEMS AND COMPUTERS. PACIFIC GROVE, NOV. 5 - 7, 1990, NEW YORK, IEEE, US, vol. VOL. 2 CONF. 24, 5 November 1990 (1990-11-05), pages 644-648, XP000280093 * abstract * * page 647, left-hand column, line 1 - line 15 * -----	1-4	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 21 July 2004	Examiner De Vos, L
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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