BAYER DSP Solutions

G.729A Speech Codec

for Texas Instruments C55x and Analog Devices Blackfin

G.729A is a reduced complexity version of ITU-T G.729 speech coder standard from International Telecommunication Union–Telecommunication standardization sector (ITU-T), for compressing the toll quality speech (8000 samples/second) at 8 kbps.

Typical applications of this speech coder are in telephony over packet networks, like Voice-over-Internet-Protocol (VoIP).

Our implementation of a G.729A/B is available for Blackfin platforms and can be demonstrated on BF533-EZ Lite. Implementations on TMS320C55x processors are available as eXpress DSP (XDAIS) compliant versions.

The algorithm was implemented to be independent of the hardware interface, ie. the user specifies input and output channels and must handle buffers in his framework.

The algorithm is fully re-entrant and can easily be integrated in a “C”-environment.

Specifications (ASM optimizable on request)	***Blackfin***	***C55x***
MIPS per encoder channel	< 20 MIPS	~ 16 MIPS
MIPS per decoder channel	< 8 MIPS	~ 2 MIPS
Program memory	< 38 kBytes	< 35 kBytes
Data memory	< 6.2 kBytes	< 6 kBytes
Data memory per channel (encoder / decoder)	2 / 1.5 kBytes	

Support:

Available under NDA as a compiled library

Customization/Integration support available

Code portable to other platforms (DSP, non-DSP)

Demo for BF533-EZ Lite available

XDAIS compliant versions for TI C55x

KCL

Kane Computing Ltd
7 Theatre Court, London Road,
Northwich, Cheshire, CW9 5HB, UK.
Tel: +44(0)1606 351006
Fax: +44(0)1606 351007/8
Email: sales@kanecomputing.com
Web: www.kanecomputing.co.uk

THE DSP COLLABORATIVE
ANALOG DEVICES

eXpressDSP Compliant
DSP
TEXAS INSTRUMENTS