



Encore's iLBC

Processor

TMS320C64xx Series

Technology

iLBC is a speech codec developed for robust voice communication over IP. It is based on block-independent linear-predictive coding (LPC) algorithm. It is designed for narrow band speech, with a sampling rate of 8 kHz. The iLBC codec supports two basic frame lengths, giving a bit-rate of 13.3 kbps with an encoding frame length of 30 ms and 15.2 kbps with an encoding frame length of 20 ms. The codec enables graceful speech quality degradation in the case of lost frames, which occurs in connection with lost or delayed IP packets.

Features

- Texas Instruments eXpressDSP™ compatible software architecture.
- Frame based design. The code is designed to work on a frame basis, 160 samples (20 msec) and 240 samples (30 msec).
- Full duplex multi-channel capability.
- Flexible interface with 'C' callability, with a single archive file for all functions.
- Built-in scratch memory management to avoid run-time overloading of system stack memory.
- The code is interruptible and full re-entrant. It can be used in systems with multi threaded software architecture.
- Supports little endian format.

Performance

Resource Requirements

Memory (KBytes)

Program Memory	Data Memory		
	Tables	Static/Channel	Scratch
74.85	6.8	2.7	8.3

MCPS

MCPS measurements on **TMS320C6416 DSK** platform, with all code, tables, data and stack in internal L2 memory.

	20 msec	30 msec
Encoder	7.1	8.0
Decoder	3.9	3.9
Full Duplex	11.0	11.9

Availability

Now

For further information please visit our web site, <http://www.ncoretech.com> or email to: ip@ncoretech.com or contact:

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