



Encore's iLBC

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

- 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 frame re-entrant. It can be used in systems with multi threaded software architecture.

Platforms

- TMS320C64X
- ARM9E
- Coldfire (MCF52xx, 53xx, 522xx)

Performance Numbers

Platform	Program Memory (KBytes)	Data Memory (KBytes)			MIPS
		Static/Channel	Scratch	Tables	
TMS320C64X	74.85	2.7	8.3	6.8	11.9
ARM9E	106.0	2.7	8.3	6.8	*45.0
MCF52xx, 53xx, 522xx	55.5	2.7	8	6.6	77

* This cycle was measured with 0 wait state memory, 16 Kbytes I/D cache, 32 bit bus width, ratio of core clock to bus clock=1

Availability

Now

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