



Encore's GSM-FR

Technology

GSM-FR is a Full Rate speech coder standardized by the European Telecommunications Standards Institute (ETSI) for compressing toll quality speech (8000 samples / second). The coder has a bit rate of 13kbps.

This coder uses the principle of Regular Pulse Excitation-Long Term Prediction-Linear Predictive coding.

The coder works on a frame of 160 speech samples (20 msec), and no look ahead is required. So the algorithmic delay for the coder is 20 msec.

Features

- Fully compatible/bit-exact with the following standards
 - ETSI Recommendation GSM 06.10 version 8.0.2 release 1999
 - GSM Full Rate Speech Transcoding
 - ETSI Recommendation GSM 06.32 version 8.0.1 release 1999
 - Voice Activity Detector for full rate speech traffic channels
 - ETSI Recommendation GSM 06.12 version 8.0.1 release 1999
 - Comfort Noise aspects for full rate speech traffic channels
 - ETSI Recommendation GSM 06.31 version 8.0.1 release 1999
 - Discontinuous Transmission for full rate speech traffic channels
- DTX (VAD/CNG) enabling or disabling can be done on a frame basis.
- 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.
- Relocatable program and data spaces. Static (state) and scratch data spaces are dynamically relocatable. Program and table data spaces can be fragmented.
- The code is interruptible and frame re-entrant. It can be used in systems with multi threaded software architecture.
- Available in little endian format.

Platforms

- TMS320C64X
- TMS320C62X

Performance Numbers

Platform	Program Memory (KBytes)	Data Memory (KBytes)			MIPS
		Static/Channel	Scratch	Tables	
TMS320C64X	29.31	1.36	1.22	0.55	2.61
TMS320C62X	29.31	1.36	1.22	0.55	3.41

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