DATASHEET

SPIRIT DSP
Voice & Video Engine Experts

SPIRIT 1200 bps Vocoder

SPIRIT 1200 bps vocoder is based on the classic LPC model, but it utilizes Mixed Multi-Band Excitation (MMBE) model for excitation signal that ensures correct transmission of all speech signals with tone, noise and mixed spectrum components. It can be effectively used in all applications where storage capacity and/or bandwidth are limited.

Features

- Relatively high speech quality (MOS about 3.0)
- 1200 bps encoded bit stream rate
- Frame size 40 ms
- Algorithmic delay 60 ms
- Automatic built-in Frame Synchronization and Comfort Noise Generation (CNG)
- Input/output samples format: Linear PCM, 8 kHz, 16 bits
- Very simple application interface
- eXpressDSP compliant. Code is reentrant, supports multithreading and dynamic memory allocation

Specifications

SPIRIT provides porting services to multiple DSP (Motorola, Analog Devices, etc), RISC and general-purpose processors. The product is supplied with test environment and integration example code.

Detailed Product Annotation and User Guide documents describing testing procedures, interface and integration of this product, as well as DSP-based (TI 5402 DSK) demo are available for evaluation upon request.

Benefits

- Highly optimized
- Low bitrate
- High speech quality

Key Features

- Mixed MBE-LPC algorithm

Applications

- Trunking systems
- Wireless communications
- Digital voice over HF
- Call-logging systems
- Answering machines

Availability

SPIRIT Mixed MBE-LPC 1200 bps vocoder is available in the following forms:

- DSP object code for TMS320C54xx
- Fully functional evaluation object code (available upon request)
- DLL for MS Windows

PLATFORM	TI C54xx		
	Encoder	Decoder	Encoder+Decoder
Peak MIPS	11	4.5	15.5
Program Memory, KWords	-	-	7.05
Constant Memory, KWords	-	-	5.34
Dynamic Memory, KWords	-	-	1.92
Stack, KWords	-	-	1.2

PLATFORM	TI C55xx		
	Encoder	Decoder	Encoder+Decoder
Peak MIPS	11	4.5	15.5
Program Memory, KBytes	-	-	15.24
Constant Memory, KBytes	-	-	10.74
Dynamic Memory, KBytes	-	-	4.63
Stack, KBytes	-	-	5.63

CONTACTS

www.spiritdsp.com
sales@spiritdsp.com

RU & EU: +7-499-995-23-85
USA: +1-916-955-4507
Japan: +81-3-6361-8086
India: +91-9833-894005
China: +86-136-0192-2495
Taiwan: +886-2-2888-1010 ext. 100
Korea: +82-17-232-3878
Singapore: +65-9380-4061
Vietnam: +84-24-3772-7766