

NatureDSP G.723.1 Voice Codec

Overview

G.723.1 – dual rate vocoder conforming the ITU-T G.723.1 recommendation. It can be used in a wide range of applications such as multimedia devices, visual telephony, wireless telephony and videoconferencing products.

Features

- coding rate 5.3 or 6.3 kbps
- integrated VAD and CNG
- sampling rate 8 kHz
- The encoder and decoder meet all ITU G.723.1 compliance and interoperability requirements.
- kernel mode compatible
- · very low stack usage

Applications

- VoIP
- Telephony

Specifications

PLATFORM	MIPS consumption
Texas Instruments C64+, DSP/BIOS (note3)	
Encoder 5.3 / 6.3	5.2 / 5.4
Decoder 5.3 / 6.3	0.6 / 0.7
ARM9E, GCC, Linux (note 1)	
Encoder + Decoder 6.3	37.4
ARM11, GCC, Linux (note 2)	
Encoder + Decoder 6.3	27.4
Texas Instruments, C55, DSP/BIOS (note 3)	
Encoder + Decoder 6.3	21.4

NOTES:

- 1. Measured on Marvell Kirkwood, 1200 MHz
- 2. Measured on Marvell Armada, 800 MHz
- 3. Measured on simulator

Bit exactness proved by ITE

G.723.1 is delivered with fully automated IntegrIT Testing Environment (ITE) for target platform based on reference ITU-T vectors set along with extended IntegrIT proprietary vectors and methods.

Availability

This software component is available in binary/source code written on fully portable C-language for:

- Texas Instruments C64, C64+, C67, DaVinci
- Marvell Sheeva, Marvell Kirkwood, Marvell Armada
- ARM9E, ARM11
- x86 Windows/Linux Object Library

Porting on other platforms is upon request

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