G.723.1-C54x Data Sheet

Introduction

Beijing YiYuanZhuCheng Technologies (YYZC) G.723.1 voice coding software is an implementation of ITU Recommendation G.723.1 6.3 & 5.3 kbit/s CELP Speech Codec with Annex A. The software runs on the Texas Instruments (TI) TMS320C54X family of Digital Signal Processors. The G.723.1 voice codec provides near toll speech quality at a compressed data rate of 6.3 or 5.3 kbit/s. The G.723.1 is used in wireless voice, voice-over-packet-networks, multimedia, and voice circuit multiplexing applications. Both encoder and decoder pass all ITU-T test vectors.

Resource Requirements*†‡

Software	MCPS (Peak)	MCPS (Average)
Encoder (6.3k)	13.84	11.99
Encoder (5.3k)	14.50	12.89
Decoder	1.12	1.02

Software	Program Memory			Const Data Memory	Scratch Memory	Stack Memory	Per Channel Data Memory
Encoder (6.3k)	2,184	+7,048	+2,026=11,258	18,998	4,200	300	1,500
Encoder (5.3k)			+2,302=11,534		5,000	350	1,500
Decoder		+3,442=5,626			2,500	280	450

Money Back Guarantee

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* All MCPS results are based on TI CCS3.3.38.2 C54xx Cycle Accurate Simulator when encoding/decoding the ITU-T test vectors. The real cycles may vary when running on different C54x DSPs and different inputs.
† All memory usage figures are given in unit of byte.
‡ YYZC keeps the right to update the software without updating these figures.