



Adaptive Digital Technologies, Inc.

ADT 4800 Voice Coder

PRODUCT DESCRIPTION

The Adaptive Digital Technologies ADT-4800 voice coder software is a real-time implementation of Adaptive Digital's proprietary 4800 bps speech compression algorithm. This algorithm provides good speech quality at a low bit rate. This software runs on the Texas Instruments (TI) TMS320C5000 family of Digital Signal Processors (DSPs).

FEATURES

- Functions are C-callable
- Multiple channel operation
- Capable of in-band synchronization.
- Can be integrated with echo cancellers, and tone detection/regeneration.

AVAILABILITY

ADT 4800 is available on the following Platforms: Other configurations are available upon request.

Product	Platform	Memory Model	Endian	Code Gen Tool Version
ADT_4800_c55x	TI TMS320C55x	Large	Little	N/R
ADT_4800_c54x	TI TMS320C54x	Far	N/A	N/R

Endian, byte order: "Little Endian" means that the low-order byte of the number is stored in memory at the lowest address, and the high-order byte at the highest address. "Big Endian" means that the high-order byte of the number is stored in memory at the lowest address, and the low-order byte at the highest address.

Mm – Memory Model: Memory Model is specific to Texas Instruments processors.

SPECIFICATIONS

Coding Rate: 4.8 kbps

Sampling Rate: 8 kHz

Delay: 37 msec.

TI TMS320C5000

C55x

CPU UTILIZATION & MEMORY REQUIREMENTS

All Memory usage is given in units of byte.

Software	MIPS (Peak)	Program Memory	Data Memory	Per-Channel Data Memory
Encode build	11.75	--	--	--
Decode build	1.88	--	--	--
Encode/Decode build	13.63	9994	2400	736/210

Last update: 09/2012

C54x**CPU UTILIZATION & MEMORY REQUIREMENTS**

All Memory usage is given in units of 16-bit word.

Software	MIPS (Peak)	Program Memory	Data Memory	Per-Channel Data Memory
Encode build	12.8	6875	11854	622
Decode build	1.5	4637	11874	191
Encode/Decode build	14.3	9081	11874	813

Last update: 07/25/2002

FUNCTION

ADT4800_ADT_InitializeDecode (. . .) Initializes the ADT4800 decoder software

ADT4800_ADT_InitializeEncode (. . .) Initializes the ADT4800 encoder software

ADT4800_ADT_Encode(. . .) Executes the ADT4800 encoder

ADT4800_ADT_Decode(. . .) Executes the ADT4800 decoder

Deliverables

The deliverable items are platform dependent. In general, there is one library. (Sometimes multiple variants of the library are included in the deliverables.) There are also header files, some of which are specific to the product and others are common across many of Adaptive Digital's products. Also included in the deliverables is product documentation, which includes a users guide and usually includes release notes and a data sheet. Sample/test code may be included as well.

Adaptive Digital is a member of the Texas Instruments Developer Network, and ARM Connected Community.

CONTACT INFORMATION

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