

## WMA DECODER

Adaptive Digital Technologies, Inc.

### PRODUCT DESCRIPTION

The Adaptive Digital Technologies WMA Decoder is Class 4 implementation of WMA decoder, fully support all versions of WMA namely V2, V7, V8, V9, V9beta, V9NC and VBR(Variable Bit Rate). The WMA decoder converts audio data in compressed format to uncompressed format(16bit raw PCM). It supports sampling frequencies from 8 kHz to 48 kHz and all bit-rates specified by the standard.

### FEATURES

- Supports DRM (Digital Right Management).
- Supports 2 channels in stereo mode (stereo/mono).
- Support 8-48 kHz output sampling rates and 5-384 kbps input bit rate
- Bit-Compliant as per the Microsoft test acceptance criterion.
- Compliant with XDAIS specification.



Strategic member  
of the TI Third  
Party Network



eXpressDSP™  
Compliant

### AVAILABILITY

ADT WMA Decoder is available on the TMS320C5000™ DSP Platform  
C54X™ and C55x™ DSP Generation

### SPECIFICATIONS

**Sampling Rate:** The WMA Decoder supports sampling frequency from 8kHz to 48 kHz as specified by the standard.

**Bit Rate:** The WMA Decoder supports all bit rates as specified by the standard.

C54x

#### Cycles Information–Profiled on TMS320C5416

Configuration	Test File Parameters	MIPS(Max)	MIPS(Avg)
WMA decoder (non-DRM)	48kHz – 320 kbps	78.1	40.0
WMA decoder (non-DRM)	48kHz – 192 kbps	69.5	35.7
WMA decoder (with DRM)	48kHz – 320 kbps	100.4	91.9

## Memory Statistics

All Memory usage of WMA C54X is given in units of kilo words (1 kilo word = 1024 words).

Configuration	Program Memory	Constants	External	Scratch	Instance
WMA decoder (non-DRM)	15	8.1	7.3	4	20
WMA decoder (with DRM)	30	10.2	7.3	4	22



Last update: 5/31/2006

C55x

## Cycles Information—Profiled on TMS320C5510

Measured with number of frames = 500, all internal memory.

Configuration	Test File Parameters	MIPS(Max)	MIPS(Avg)
WMA decoder (non-DRM)	48kHz – 320 kbps	55.13	30.14
WMA decoder (DRM)	48kHz – 160 kbps	34.72	23.66
WMA decoder (with DRM)	48kHz – 160 kbps	47.92	28.50

## Memory Statistics

All Memory usage of WMA C55X is given in units of kilobytes. (1 kilo byte = 1024 bytes)

Configuration	Program Memory	Constants	Scratch	Instance
WMA decoder (non-DRM)	28.03	33.78	8.7	26.72
WMA decoder (with DRM)	51.31	38.05	8.7	29.74



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## FUNCTION

*DECODE\_create(...)* creates an instance of the DECODE algorithm and returns a handle to the object.

*DECODE\_decode(...)* processes the calls to the decoder.

*DECODE\_delete(...)* deletes the instance of the dynamically created object referenced to by the handle

## CONTACT INFORMATION

Web: [www.adaptivedigital.com](http://www.adaptivedigital.com)  
 Email: [information@adaptivedigital.com](mailto:information@adaptivedigital.com)  
 Tel: 610.825.0182  
 Fax: 610.825.7616  
 Address: 525 Plymouth Road, Suite 316  
 Plymouth Meeting, PA 19462 USA