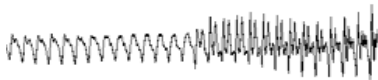**SPIRIT DSP**
Voice & Video Engine Experts

SPIRIT Time Stretching

A common way of slowing down or increasing the playback speed causes the sound to change its signal pitch. To make the sound more recognizable after a faster or slower playback effect is applied, the time stretching algorithm is used.

SPIRIT Time Stretching technology is used to change the playback speed without affecting the signal tone. Stretching can be used with a rate of more than 100% (time shrinking).

Source signal (1x playback speed)

Stretched signal (0.5x playback speed)

Benefits

- Signal pitch is not affected
- Dynamic playback speed change
- Easy integration and fast time to market

Applications

- Digital audio players
- Portable media players
- Mobile phones
- Car electronics

Availability

- ARM   Now
- TI C5xx   Call
- TI C6xx   Call
- MIPS   Call

Features

- Dynamic playback speed change
- Supported sample rates: 8 – 48 kHz
- Playback speed range: 0.5x – 2x

Resource Requirements

PLATFORM	ARM 9E				
RATE	50%	71%	100%	142%	200%
Peak MIPS (48 kHz, Stereo)	30.0	21.0	3.8	30.0	105.0
Peak MIPS (8 kHz, Mono)	2.5	1.8	0.3	2.5	8.8
Total Memory, KB	5.54	5.54	5.54	5.54	5.54

Resources are given for conversion of 44.1 kHz mono signal to 48 kHz.

CONTACTS

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