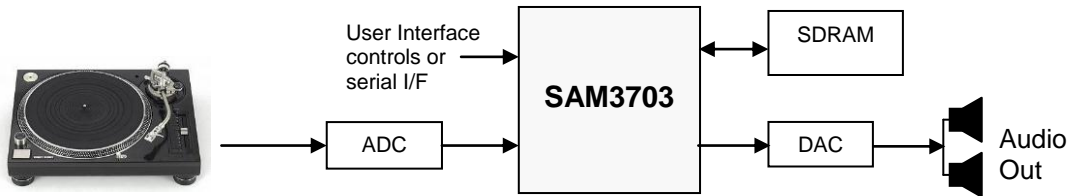


The SAM3703, driven by the firmware 3703DJFX is a low cost, high quality Multi-Effect Device especially made for DJ FX applications, like DJ Mixers and DJ Effect Devices. The SAM3703 includes a Microcontroller and three 24-bit DSP engines with embedded RAM and secure memory for code protection. It provides digital interfaces for serial data input and output, and plenty of general IO pins for direct connection of user interface controls (Switches, Encoders, LEDs, serial I/F).

The low cost hardware consists of SAM3703 + SDRAM (optional) + ADC/DAC:



DJFX Effects

This is the list of available Effects in standard DJFX firmware (other effects on request):

- **Manuel Filters** Low-Pass, Band-Pass, High-Pass. Frequency range 20Hz–20KHz
- **Filters using LFO** Low-Pass, Band-Pass, High-Pass. Typical LFO Rate range is 10ms–10s
- **Phaser** different Phaser types available (4 to 12 stages)
- **Flanger** different Flanger types available (Standard, Ultra)
- **Auto-Pan** amplitude modulation, moving between left and right output
- **Delay** Delay time depends on memory size. Accurate fine tuning delay time possible.
- **Echo** Loop Mode available (Hold function)
- **Ring Modulator** modulation by sine wave in wide frequency range up to 10KHz
- **Reverb** several Reverb types available
- **Pitch-Shifter** +/- 1 Octave range
- **Voice Canceller** reduce vocals in center position of music track
- **Vocoder** Carrier can be a single saw wave or chord

Software Extensions

The DJFX Effects can be combined with other DREAM DJ modules (standard firmware includes AutoBPM):

- **AutoBPM** Auto BPM Counter range: 60–250 BPM
- **DJSMP** DJ Sampler (Record, Forward / Backward Loop Playback, Single shot etc)
- **DJMX** multi-channel Digital DJ Mixer (2 stereo PGM with EQ / Isolator EQ, Cue etc)
- **MICFX** Microphone processings (EQ, Compressor, Effects)

Evaluation Kit

An Evaluation Kit / Reference Design is available with 3703-EK stand alone board and hardware control panel 3703FP-EK. The front panel can be easily adapted to customer needs.

