3D Surround

Overview

- Supported Products : TAS5716, TAS5709/10, AIC3xxx
- Basic formula for implementing 3D Surround

$$L_{3D} = L - hpf\{\tfrac{1}{2}(R - L)\}$$

$$R_{3D} = R - hpf\{\tfrac{1}{2}(L - R)\}$$

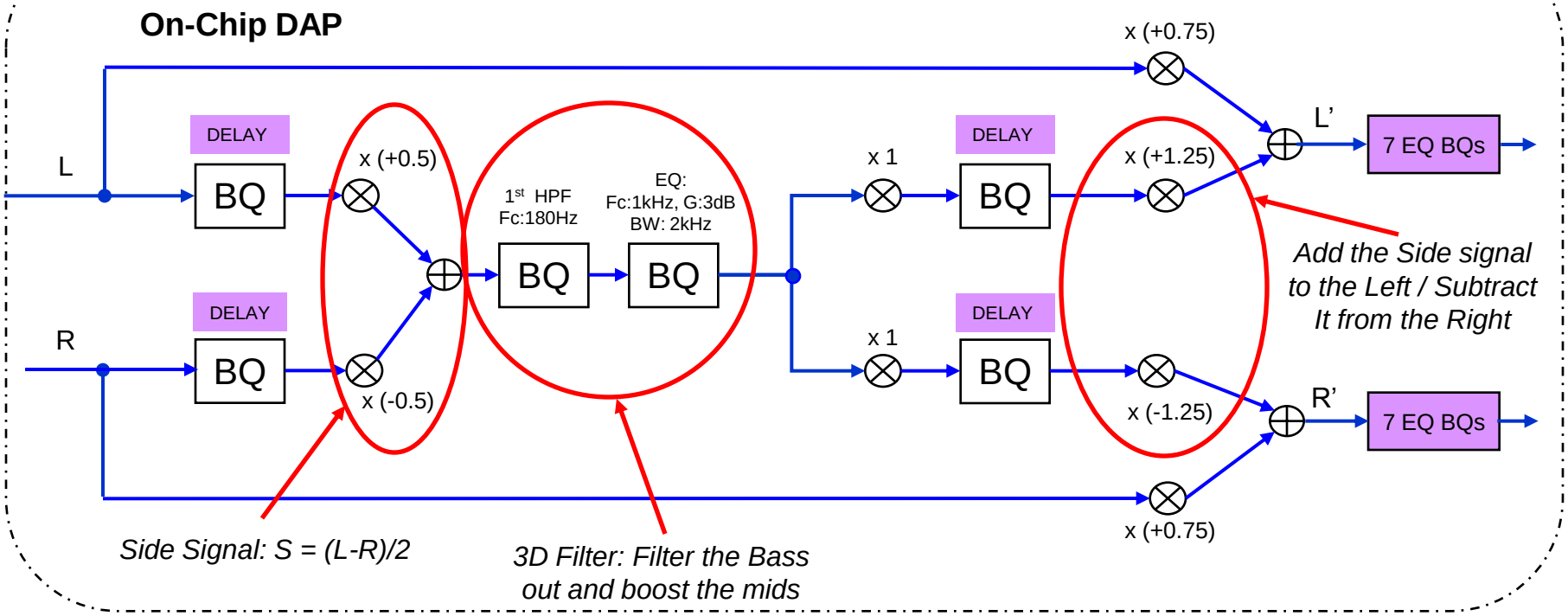
- Low-frequency energy in the music of most stereo audio tracks is monaural (i.e., left and right channels are the same) and non-directional.

- We can easily vary the amount of 3D effects

$$L_{3D} = a \cdot L - b \cdot hpf\{\tfrac{1}{2}(R - L)\}$$

$$R_{3D} = c \cdot R - d \cdot hpf\{\tfrac{1}{2}(L - R)\}$$

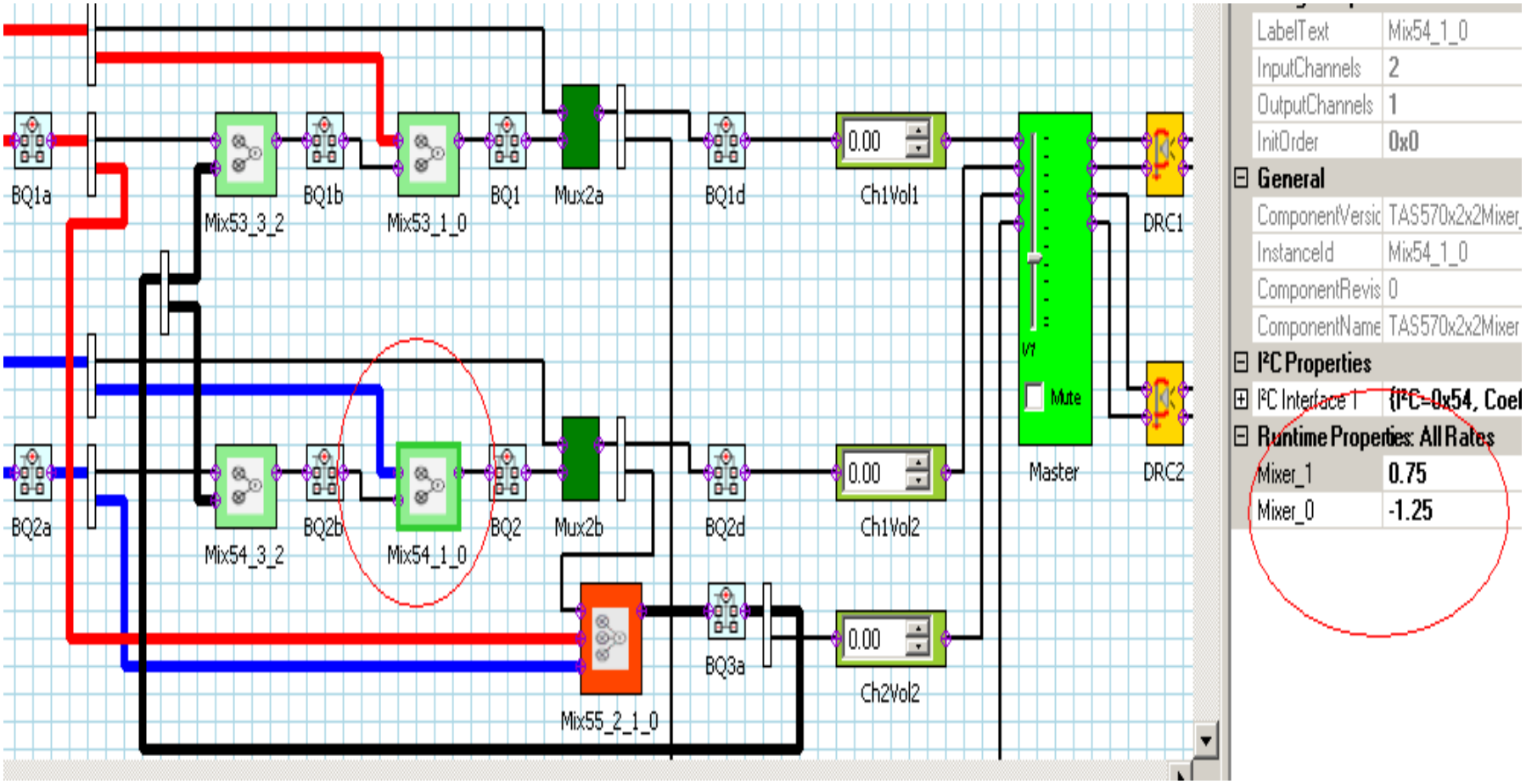
TAS5709 3D



- Enhanced Audio Experience with soundstage widening
- 3D algorithm can be fine tuned. The mixers, Biquad filters, etc. are programmable.
- Audio Processing Supported
  - 3D Effects + Speaker EQ (7 BQ per L/R) + Bass Boost

TAS5709 3D

- The mixers, Biquad filters registers, etc. are programmable through I2C.



Example: AIC3111 3D

Check out the demo after the presentation!