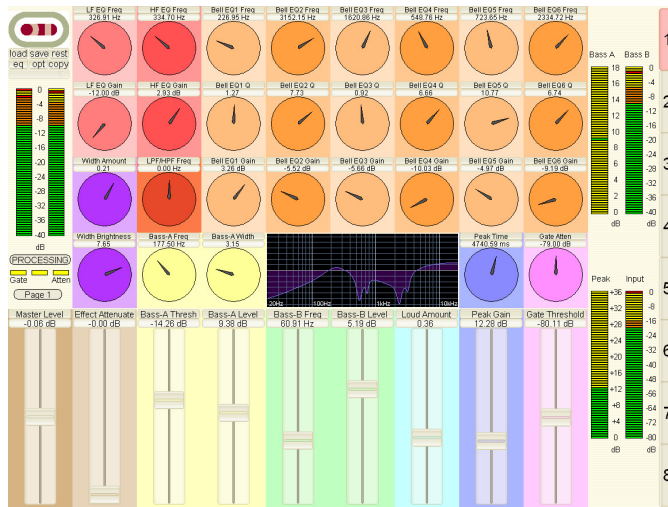# FixFx

OXFORD DIGITAL

A suite of audio DSP effects for enhancing the sound quality of consumer audio devices

Overview

FixFx incorporates a fixed configuration of audio DSP effects that allows limitations in a device's acoustic performance to be overcome and provides many popular audio enhancement effects. It features sound processing derived from Oxford Digital's pro-audio heritage.

FixFx includes just the right number of parameter adjustments to allow each effect to be easily set up, whilst ensuring enough control to get the very best from the target device. This can be achieved by an application engineer with only a modest degree of training in how to adjust **FixFx** to give outstanding results.

Applications

All of these high quality effects can be provided in stereo in less than 1000 instructions on Oxford Digital's **TinyCore**. This enables **FixFx**'s high-end performance to be realised in consumer applications, making it the ideal "tuning" solution for audio devices such as cell phones, flat panel televisions, accessory speakers, media players and many other consumer audio devices which need to provide the high quality audio demanded by today's end-users.

Features

- **EQ-master**: 12 parametric EQs, 2 tone controls, and a High/Low frequency filter, used for speaker response correction and preset effects.

- **Loud-master**: used to make the audio subjectively much louder without increasing the signal peak voltage. This is an extremely powerful effect and a "must have" for battery powered devices.

- **Peak-master**: used to enhance listening and intelligibility in noisy environments. This gives a dramatic improvement that removes the need for frequent adjustment of local volume controls.

- **Bass-master**: two different types of low frequency effect used to extend the bass response beyond the range that the device can naturally reproduce:
  - Type A ensures the maximum amount of bass is provided in the audio signal down to the speaker's cut-off frequency
  - Type B allows bass frequencies below the cut-off frequency to be perceived by the end-user

- **Width-master**: used to enhance listening by giving the impression of a bigger stereo space.

- **Noise-master**: removes unwanted noise so that only the audio signal reaches the speakers.

FixFx can provide up to eight unique scenes which allow parameters to be set-up for different audio modes such as 'rock', 'classical', 'jazz' for music applications, or 'sports', 'movie', 'news' and 'music' for AV devices.