

High Frequency Effect - Second Generation

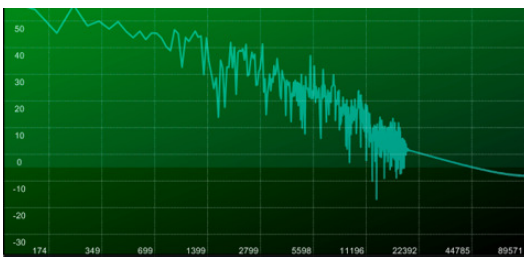
Overview

The **HFFx II** algorithm is beneficial where lossy, sub-band codecs have damaged the HF content resulting in a dull, lifeless sound and also in restoring and/or enhancing audio bandwidth to provide a more open sound from band-limited material.

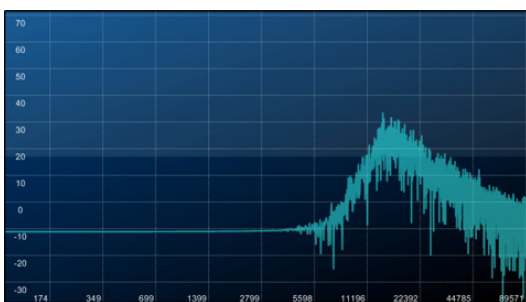
Use cases where this algorithm is beneficial include:

- Restoration of high frequency content that was removed by lossy sub-band coding (e.g. MP3, AAC, Bluetooth)
- Up-conversion of audio from 1Fs (44.1k and 48kHz) to High Resolution audio rates such as 2Fs (88.2KHz, 96KHz), 4Fs (176.4KHz, 192KHz) to create a more 'open' sound
- Extending the bandwidth of material that was recorded band-limited (e.g. recorded to analogue tape, low sample rate, or other restrictions)

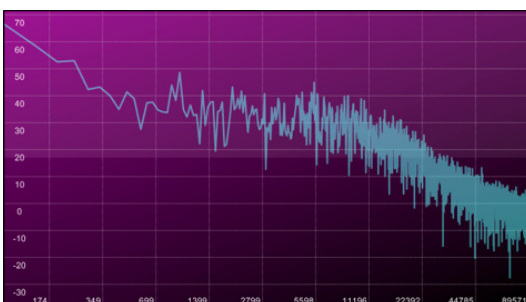
Displays



Incoming audio with missing HF



Reconstructed harmonics



Reconstructed signal

Implementation

- HFFx II can be evaluated as a time limited PC Application (PC App) once an NDA is executed.
- The PC App can also be used to tune systems and generate parameters that can be used in embedded applications.
- Embedded deliverables can vary depending on requirements. The standard system is obfuscated C code, but ports to CSR8670 and MAPX are already deployed. Ports to many other low-level embedded platforms are possible by arrangement.

Further Information

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