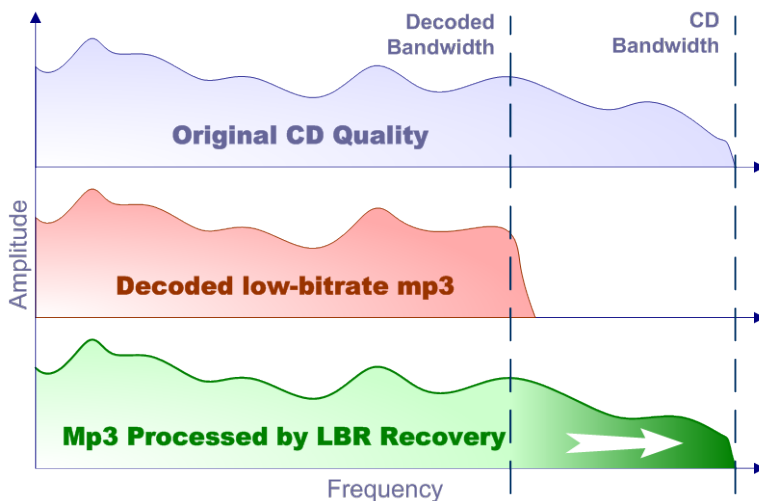


## SPiRiT LBR Recovery

LBR Recovery software is SPiRiT patented algorithm for the reconstruction of lost frequencies. High-frequency components of the signal are usually cut off by the audio codecs in low bit-rate modes. These components cannot be amplified by the equalizer since they are completely absent from the decoded signal. SPiRiT LBR Recovery is the only way to restore the high-frequency part of the decoded audio signal.

SPiRiT LBR Recovery is a new proprietary audio post processing software solution developed by SPiRiT. It is used to improve the perceptual sound quality while playing back low bit rate lossy compressed audio. LBR Recovery can be used with any decoder that produces a PCM output signal, such as MP3, AAC, WMA, and other perceptual lossy codecs.



### Benefits

- Increases perceptual audio quality
- Reduces encoder bit rate while saving the quality
- Unlike MP3 Pro, requires no dedicated coding

### Key Features

- Codec-independent solution
- Low resource consumption
- No processing delay

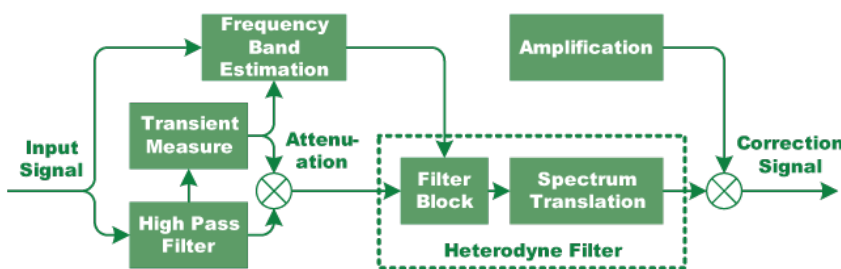
### Applications

- Audio system SoCs
- Digital audio players
- Portable multimedia players
- Mobile handsets
- Internet appliances

### Availability

- PC Now
- ARM Now
- TI C6xx Call
- MIPS Call

### Diagram

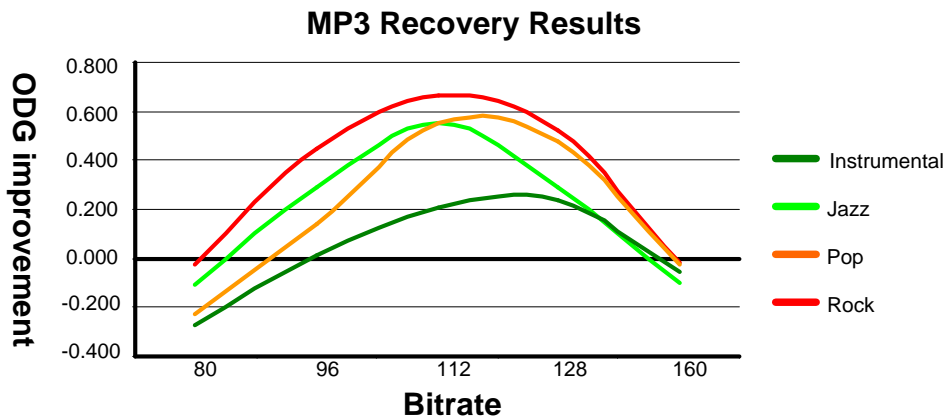


### Features

- Reconstructs high frequency components up to 22 kHz
- Supported decoders: MP3, AAC, WMA etc
- Floating and fixed point versions
- Low computational complexity
- No processing delay

## Performance

The Objective Difference Grade (ODG) measurements (according to ITU-R BS-1387 recommendation) show quality improvement of up to 1 unit on a quality degree scale from 0 to 4. This means that after post processing, an MP3 file encoded at 112 Kbps sounds better than the same file encoded at 128 Kbps without post processing.



## Resource Requirements

PLATFORM	ARM 9E
Peak MIPS	5
Total Memory, KB	7.0

*Resources are specified for 48 kHz mono PCM bitstream  
MIPS are measured using simulator with 0-WS*

### CONTACTS

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