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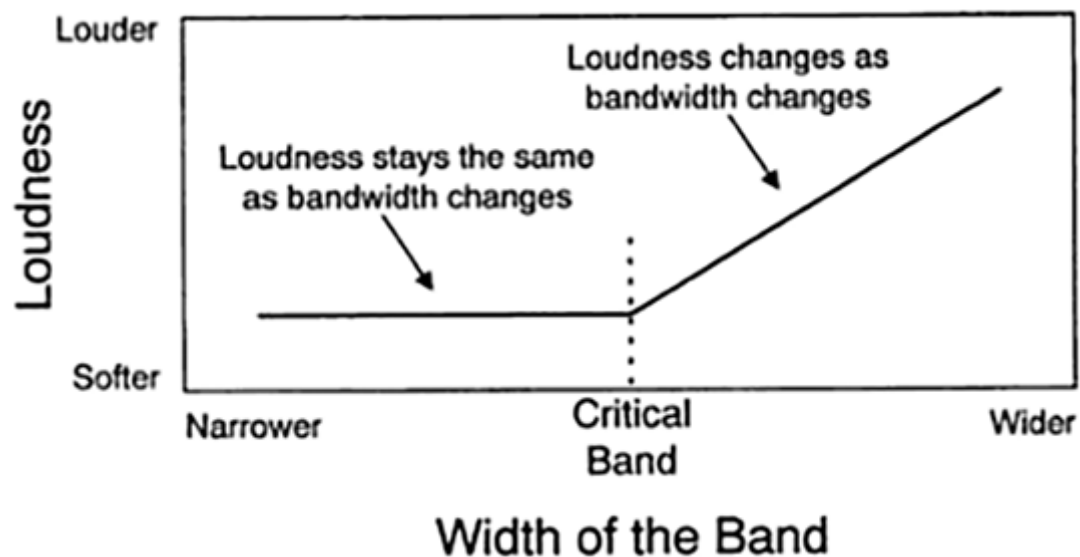
# MP3

MPEG audio layer-3 , .  
MPEG-1, MPEG-2 .  
Fraunhofer Society .  
128k**bps**, 192k**bps**, 320k**bps** , **bps**(**bit** per seconds), **bit**  
, . **WAV** 가  
1411k**bps**(16-**bit** 44.1k**Hz**) 4600k**bps**(24-**bit** 48k**Hz**) **MP3**  
1/10~20 192k**bps**, 320k**bps** .

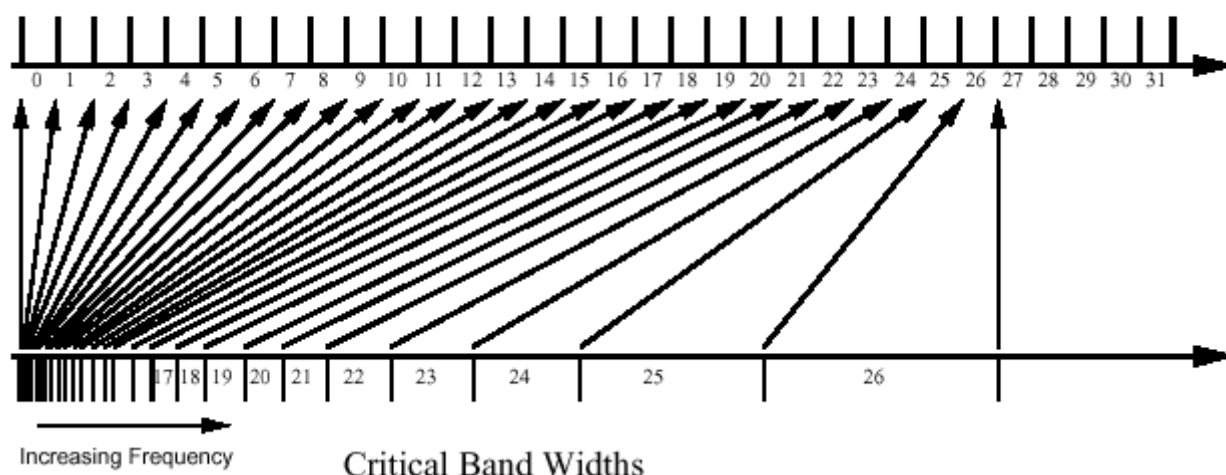
**MP3**  
, 가 , .  
, **CD** 16-**bit** 44.1k**Hz** 75%~95% 가  
, ( **CD** 1411k**bps** → 128k**bps**)

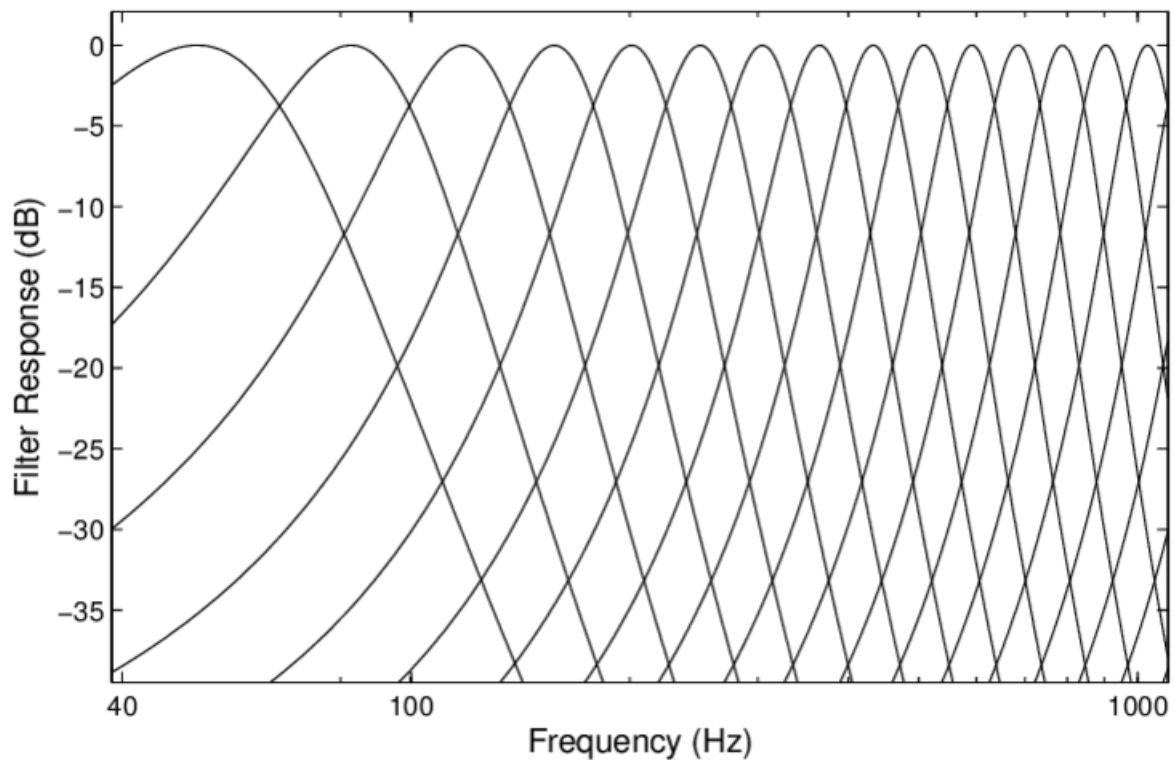
1933 Bell Labs Harvey Fletcher ,  
.  
, 가 ,  
가

**MP3**  
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MPEG/Audio Filter Bank Bands





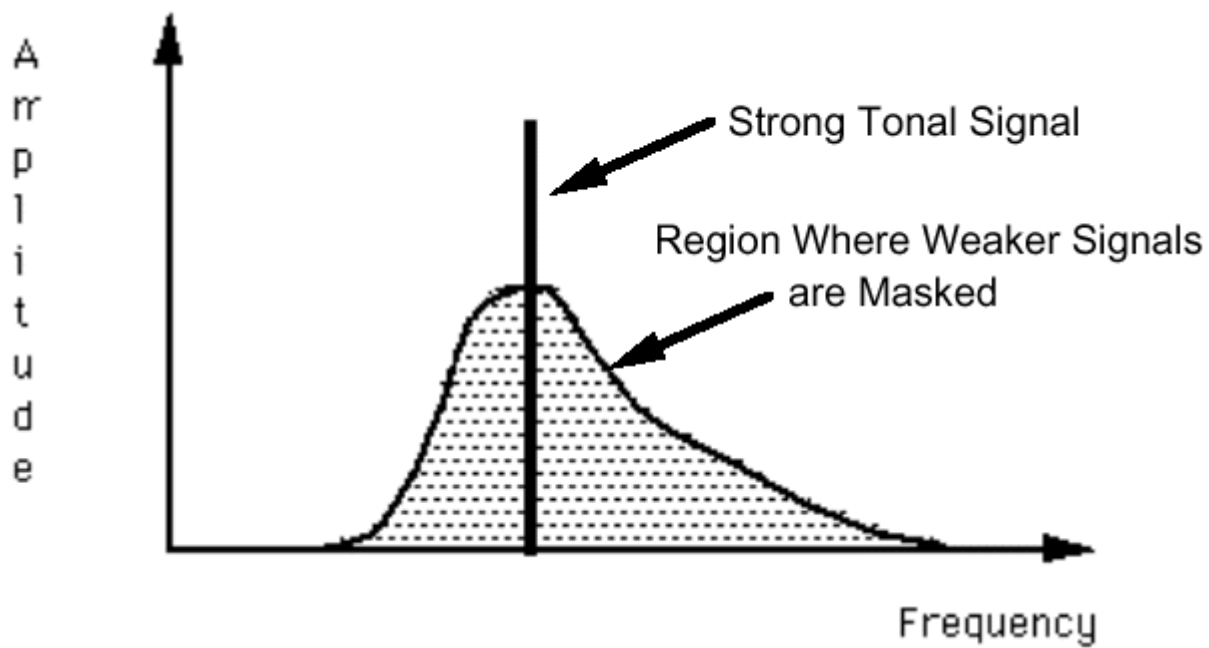
## Critical bandwidth

People perceive sound at different loudness [levels](#) depending on the bandwidth of the sound. When the bandwidth of sound is wider, it tends to be perceived as louder. However, as the bandwidth decreases, the sound is perceived as quieter. There is a certain point beyond which further reductions in bandwidth go unnoticed by humans. This point represents the minimum bandwidth that humans can perceive, and it is referred to as the critical bandwidth.

In [MP3](#) encoding, the critical bandwidth is used to divide the frequency spectrum into different critical bandwidths to remove masked sounds beforehand.

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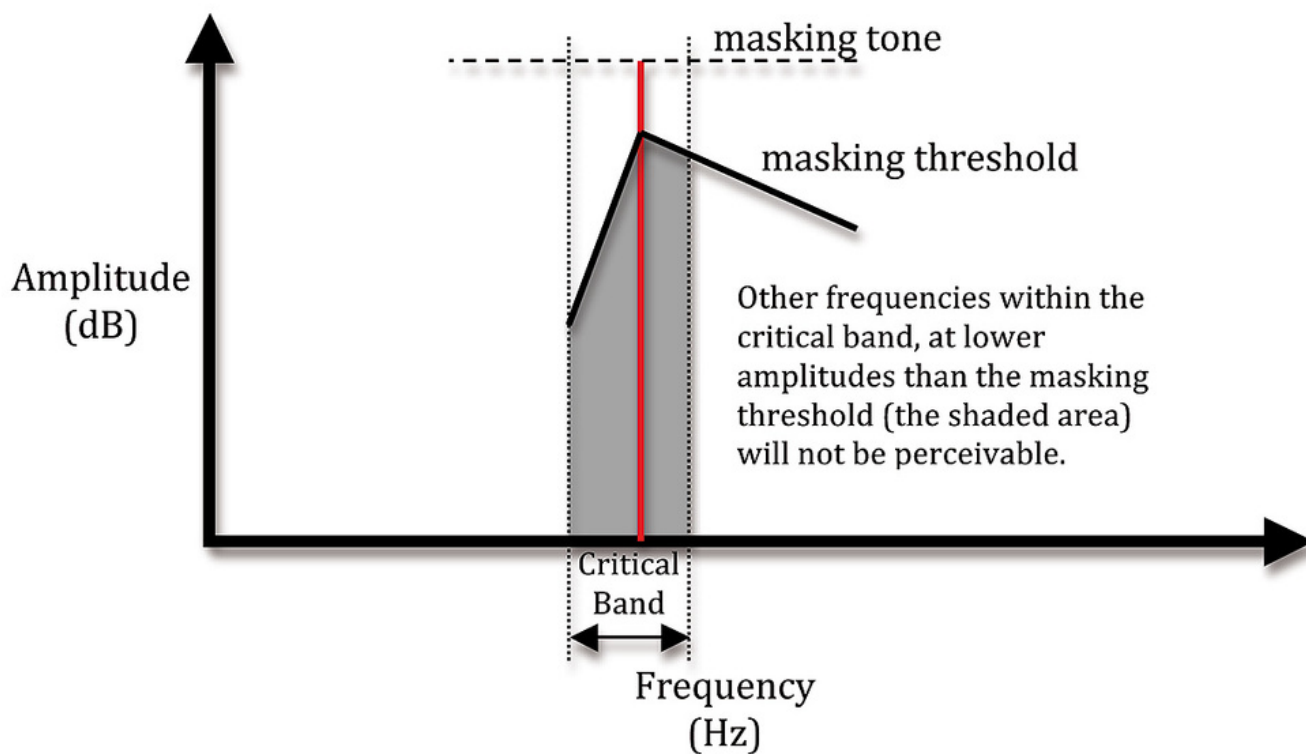
MP3

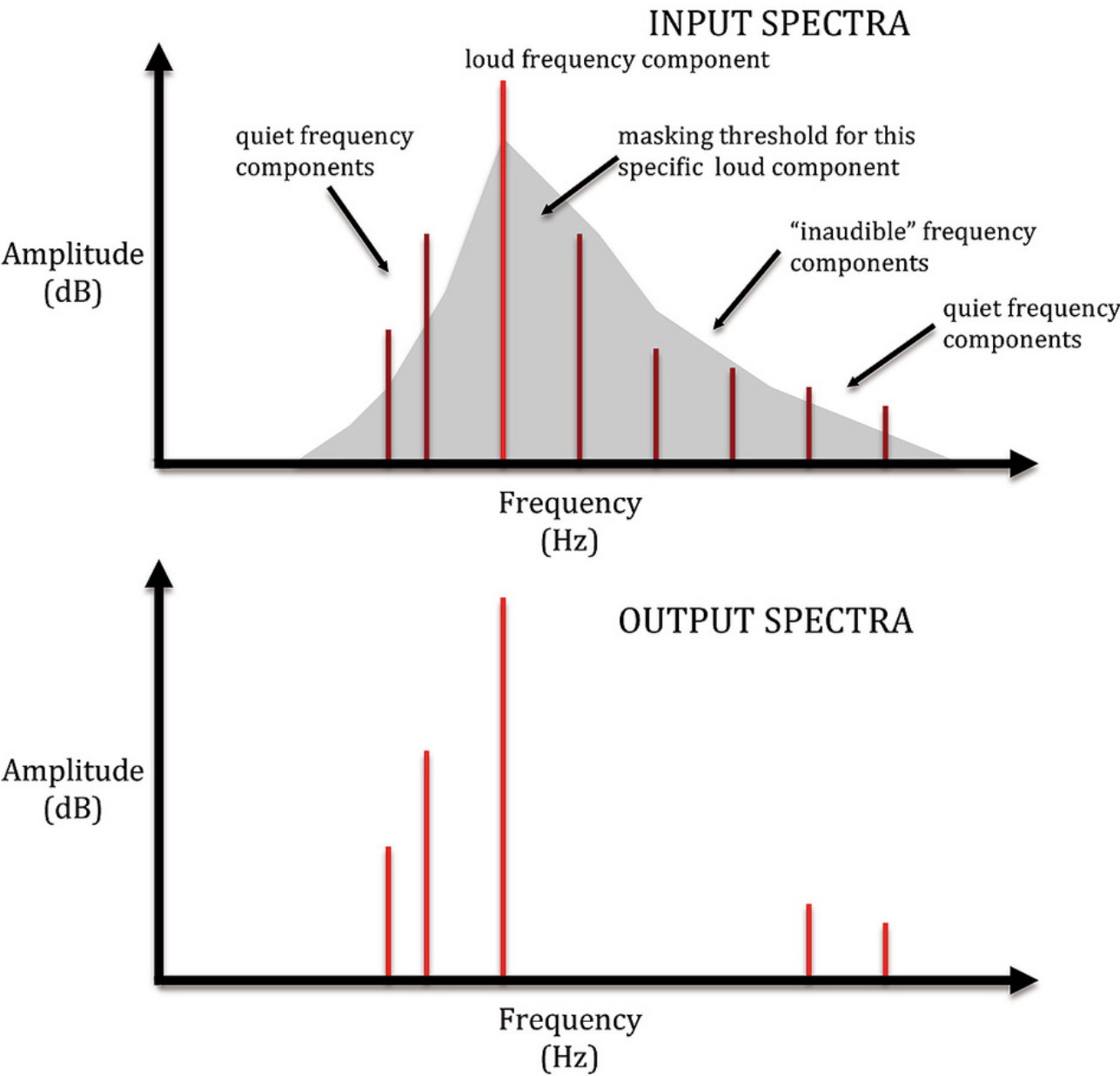


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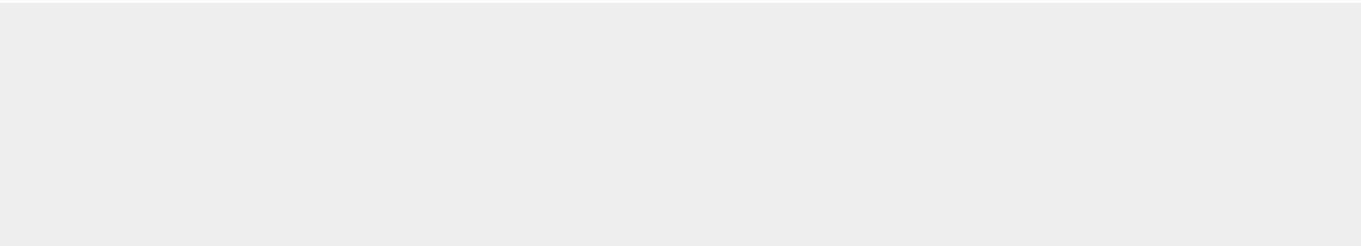
가

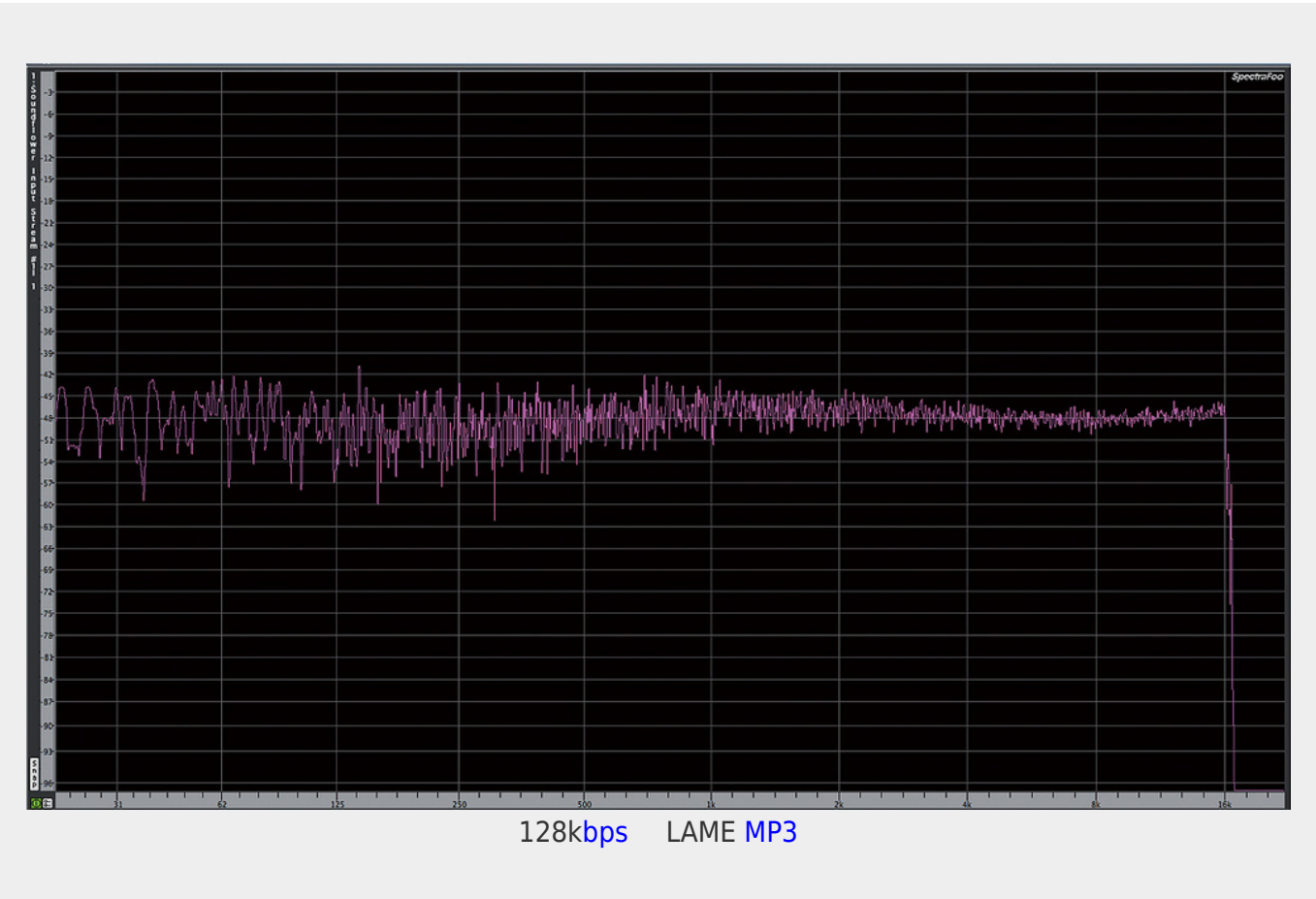
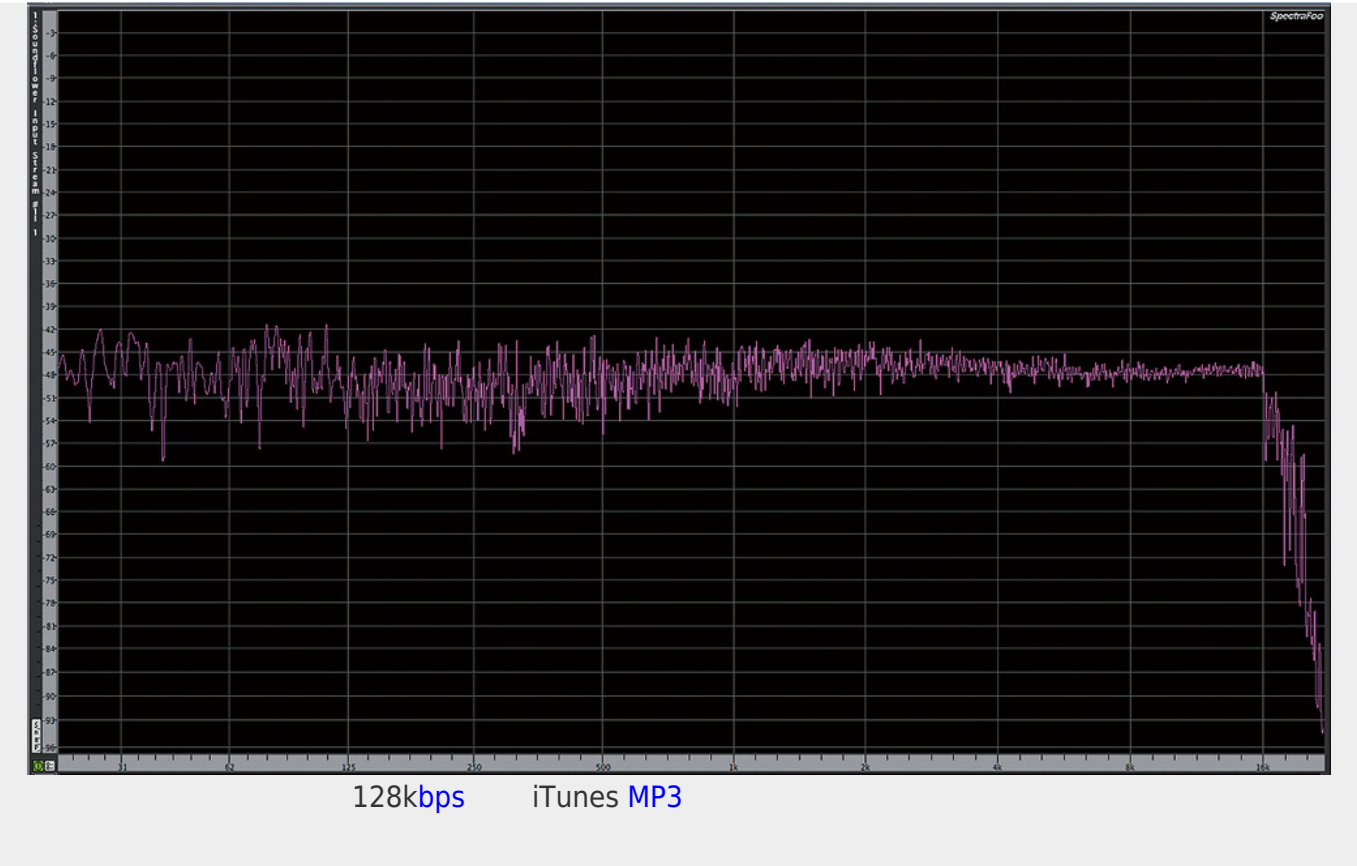


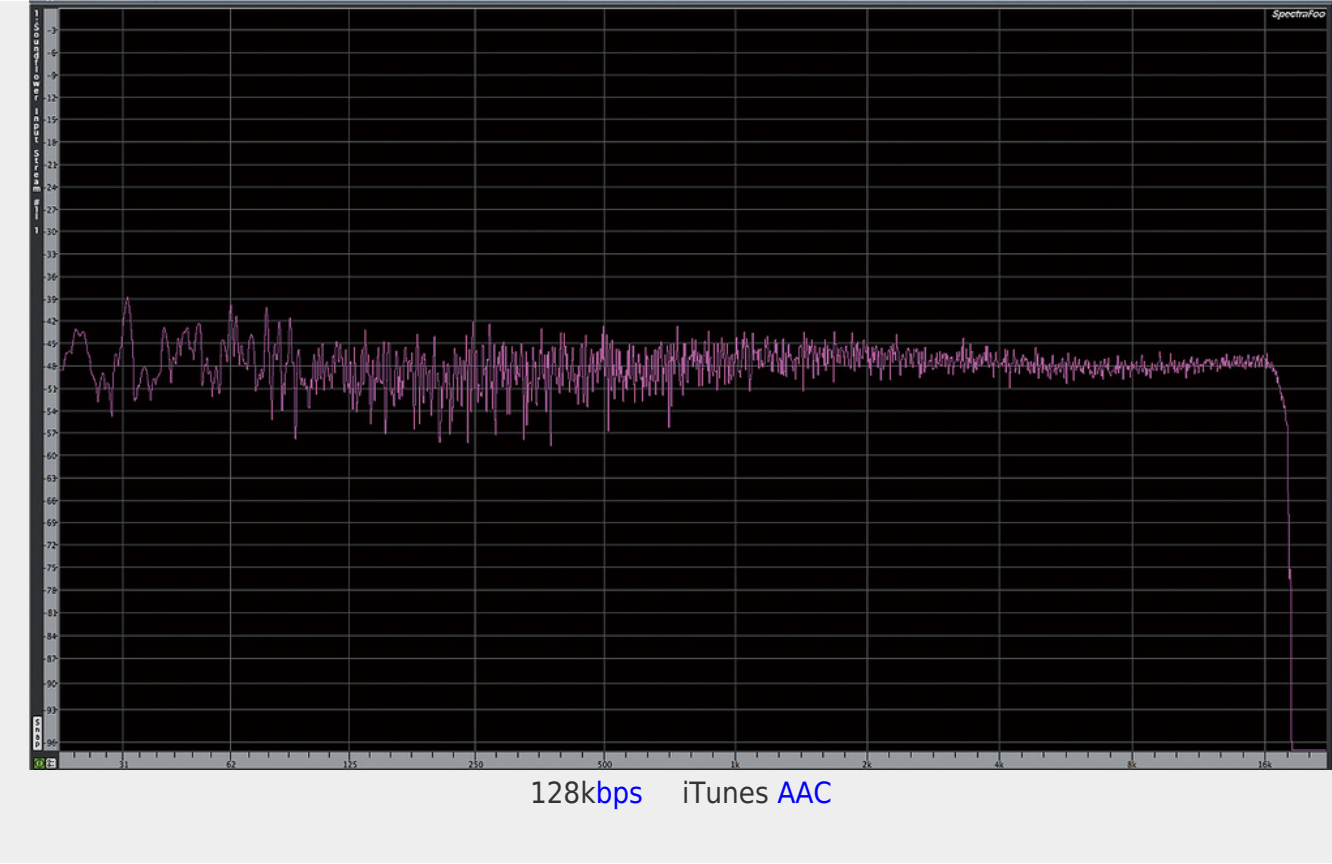


Brick Wall LPF

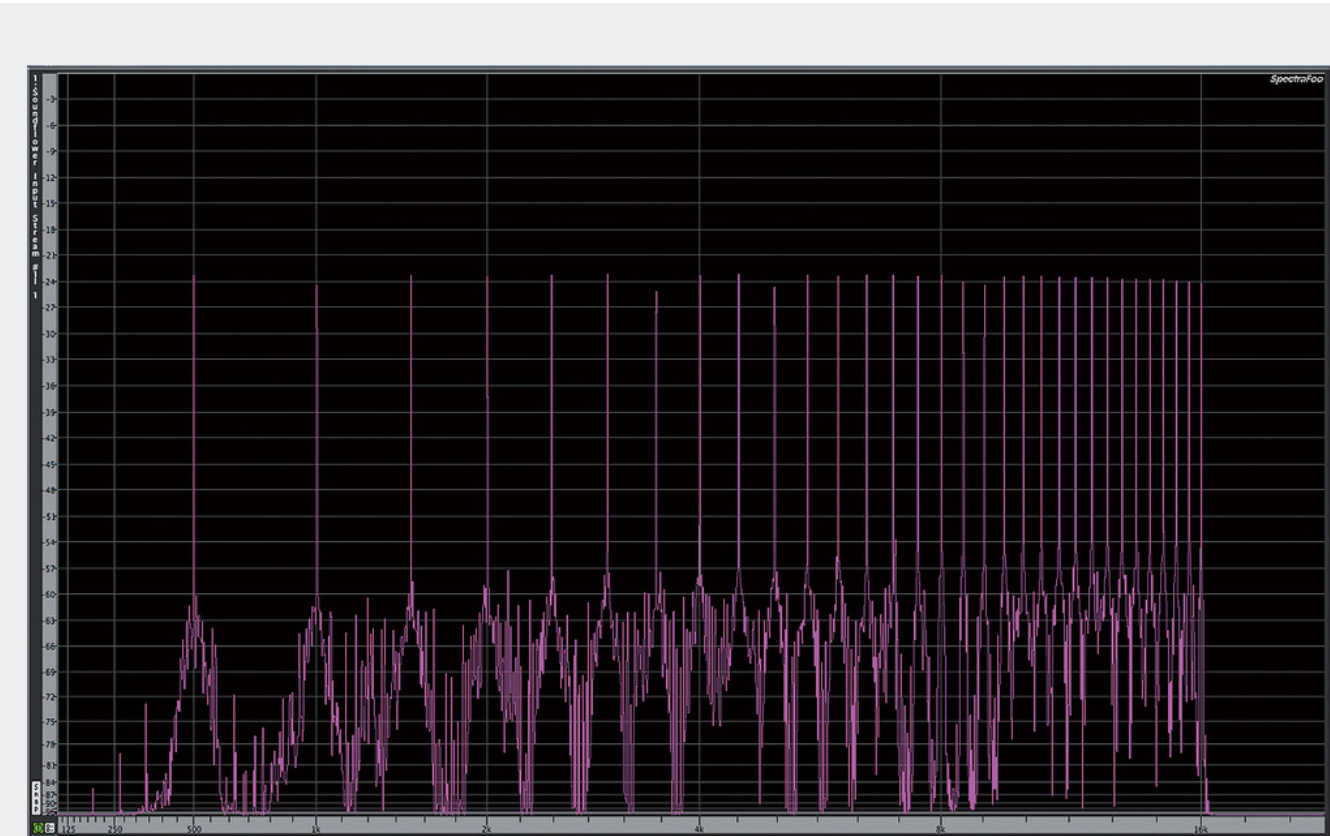
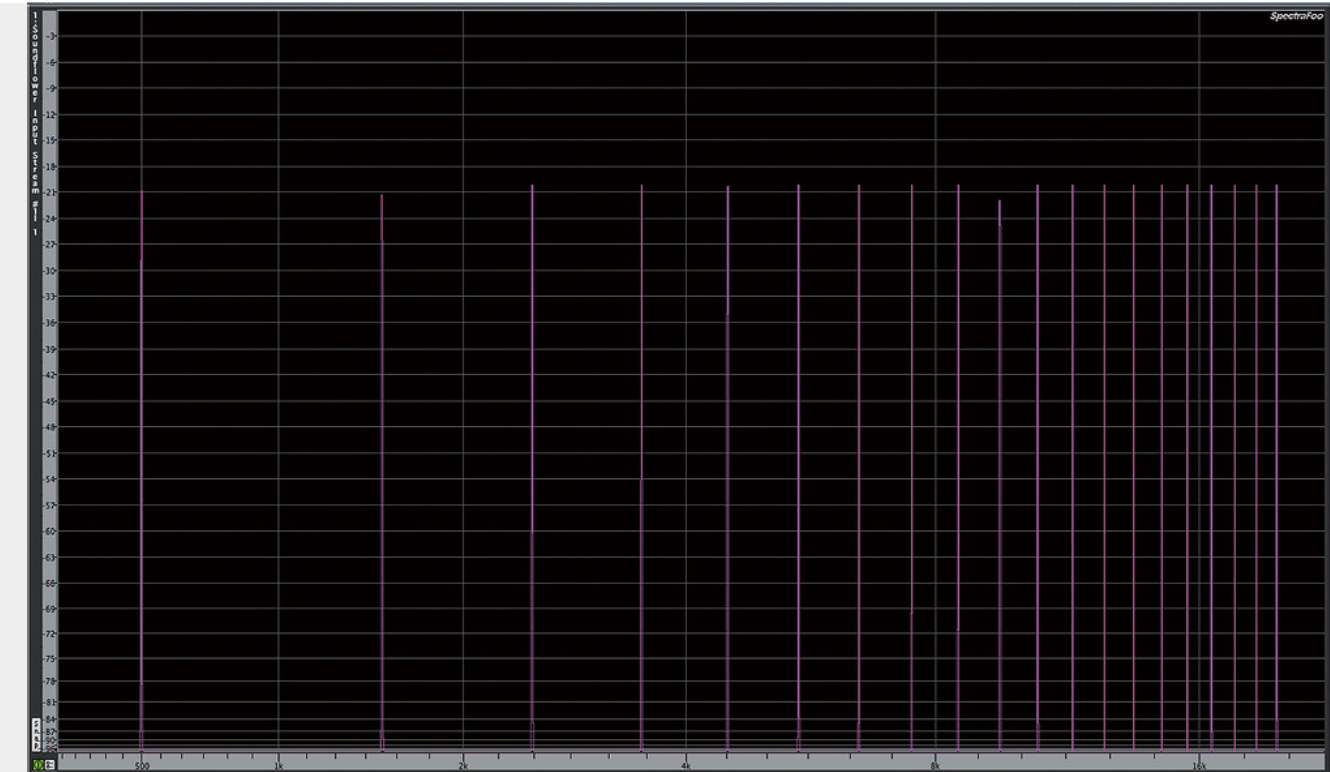
가 20Hz~20kHz , , kbps MP3  
16kHz  
16kHz . 가 ,



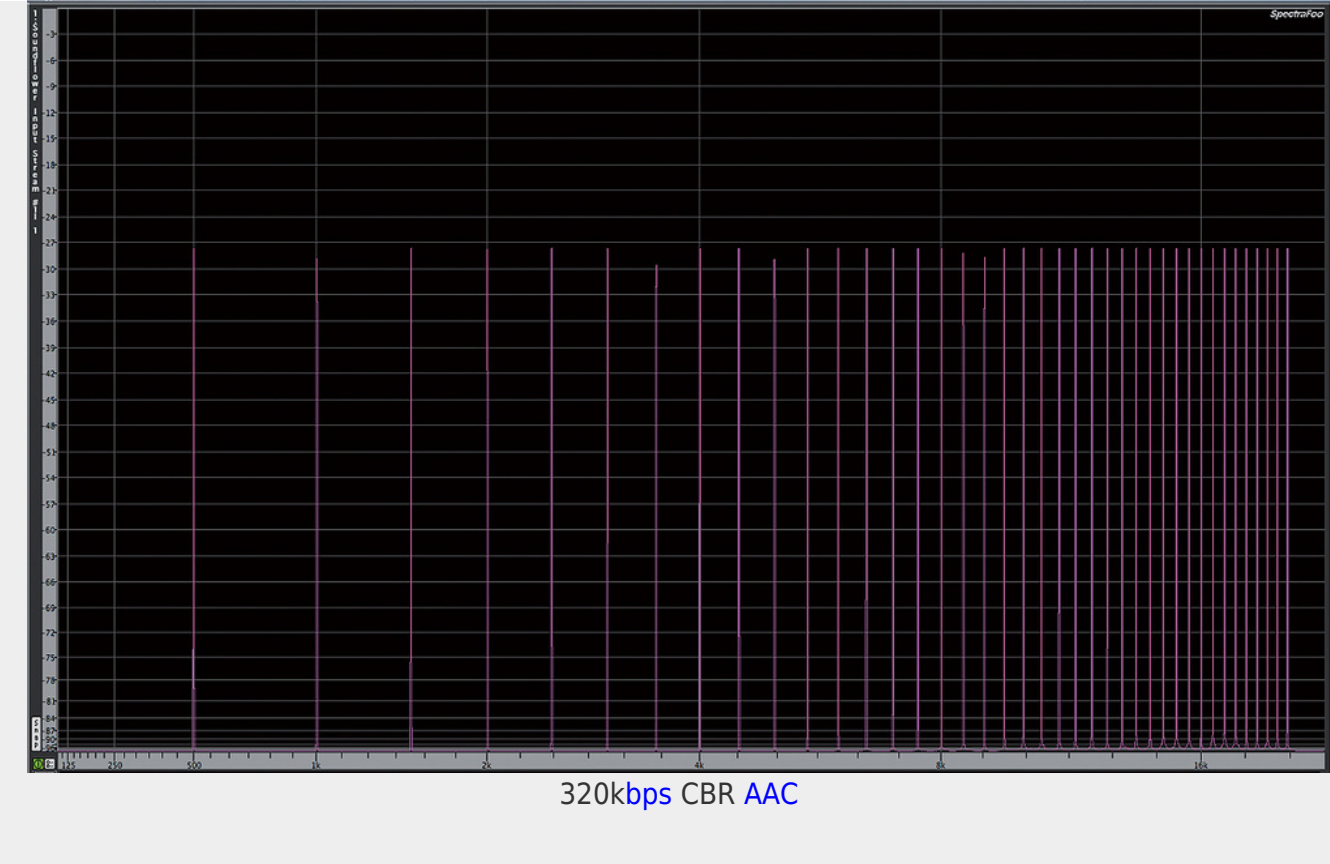




가 , 가 ,  
Swirlies  
Swirlies MP3 AAC



320kbps CBR MP3



MP3 , , , , .

MP3 ID3v1, ID3v2 가 , APEv2 .

Cubase Export ID3 tag

 Setup ID3 Tag ✕

Title

Enter Title

Artist

Enter Artist

Album

Enter Album

Track Number

0

Year

2018

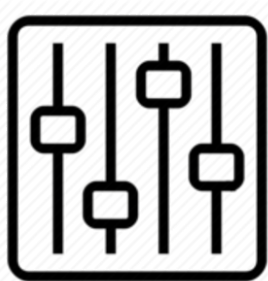
Genre

Blues

Comment

Enter Comment

OK



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: (admin@homerecz.com)