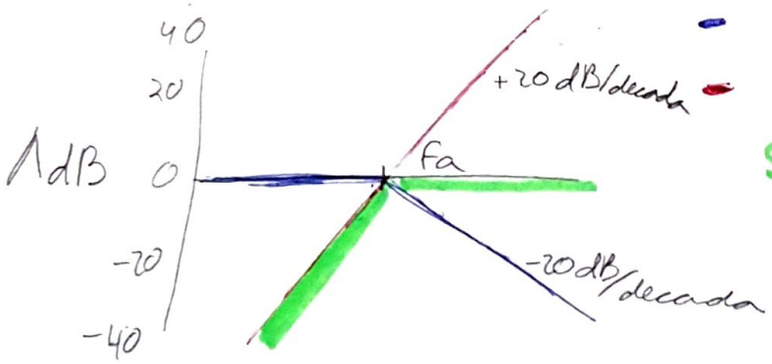
Diagramas de Bode

A	Λ db	diagrama lineal	φ
K (real)	$20 \cdot \log\|K\|$	K>1, K=1, K<1	0, π
$j f/f_1$	$20 \log(f/f_1)$	f_1	$\pi/2$
$\frac{1}{j f/f_2}$	$-20 \cdot \log(f/f_2)$	f_2	$-\pi/2$
$1 + j f/f_c$	$20 \cdot \log\sqrt{1+(f/f_c)^2}$	f_c	$\text{arctg}(f/f_c)$
$\frac{1}{1 + j f/f_p}$	$-20 \log\sqrt{1+(f/f_c)^2}$	f_p	$-\text{arctg}(f/f_p)$

Ej diagrama de Bode aproximado de A_V del filtro pasa alto
$f_a = 100Hz$

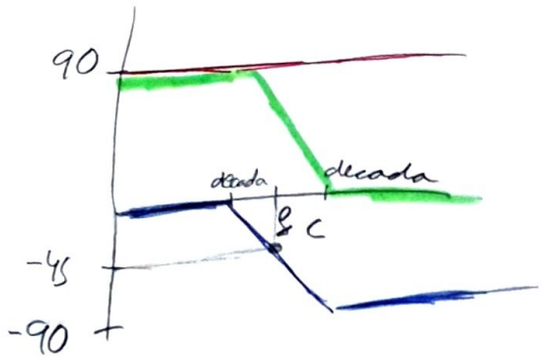
$$A_V(jf) = \frac{jf/f_a}{1+jf/f_a}; \quad |A_V| = 20\log\left(\frac{f}{f_a}\right) - 20\log\sqrt{1+\left(\frac{f}{f_a}\right)^2}$$

$$\varphi = \pi/2 - \text{arctg}\left(\frac{f}{f_a}\right)$$



- $-20\log\sqrt{1+\left(\frac{f}{f_a}\right)^2}$
- $20\log(f/f_a)$

suma de ambas



- $\pi/2$
- $-\text{arctg}(f/f_a)$

suma de ambas