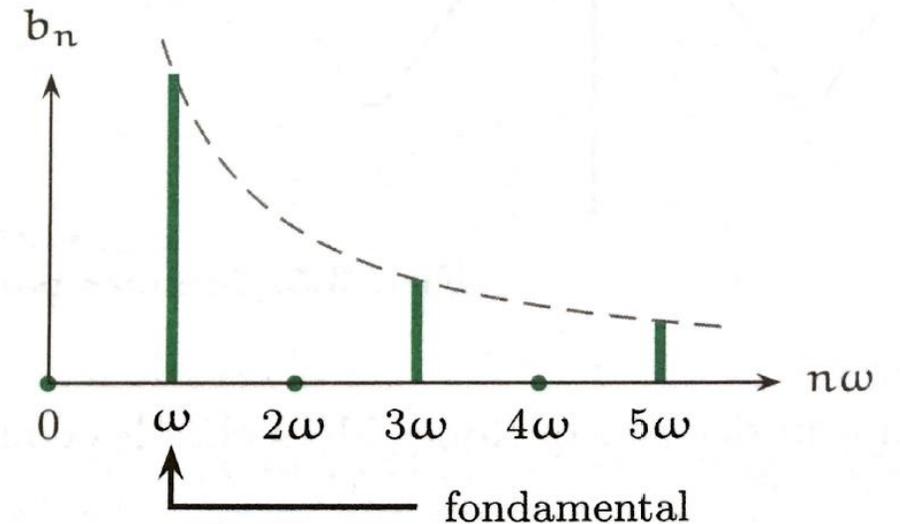
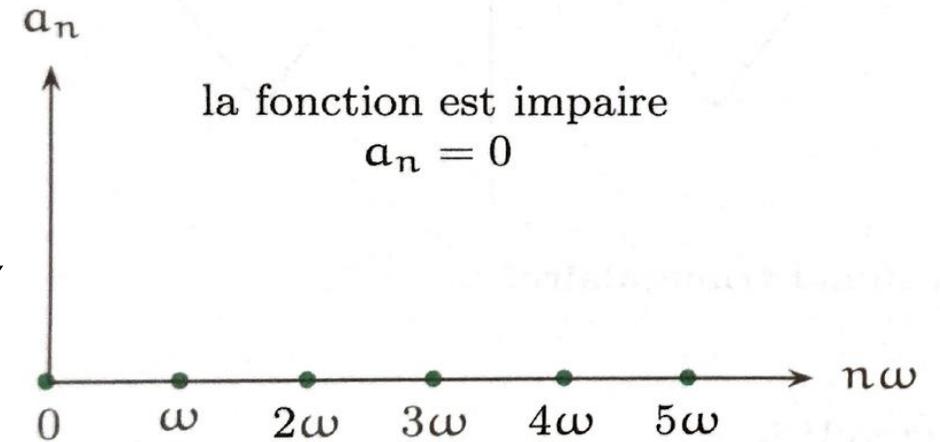
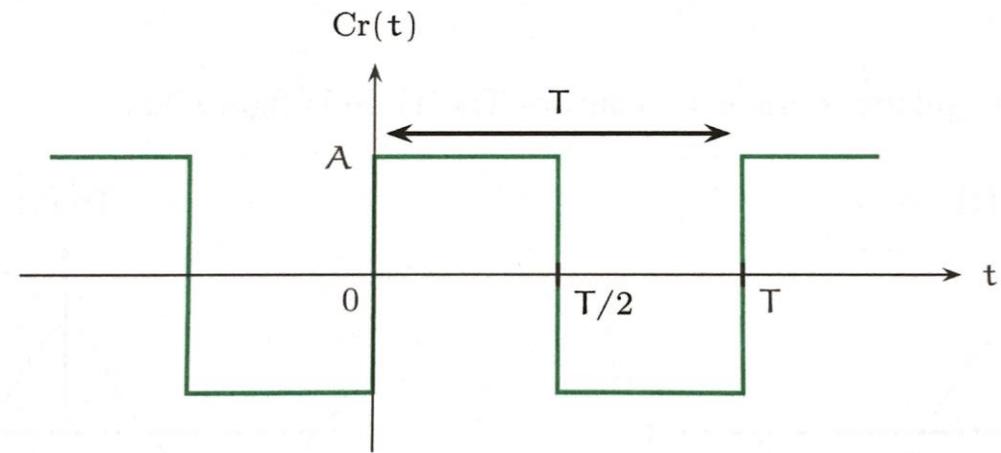


L.P. 23 – Traitement d'un signal. Etude spectrale

Marchetti Benjamin

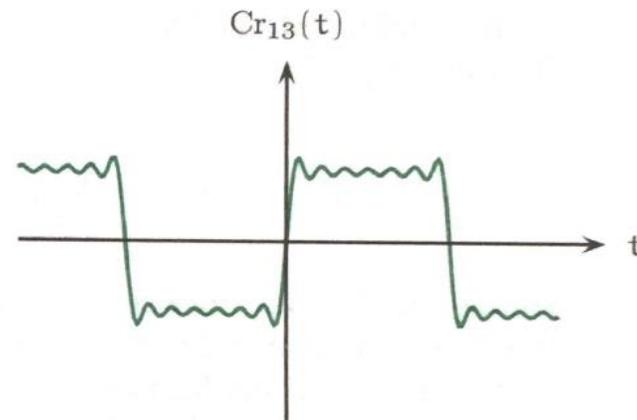
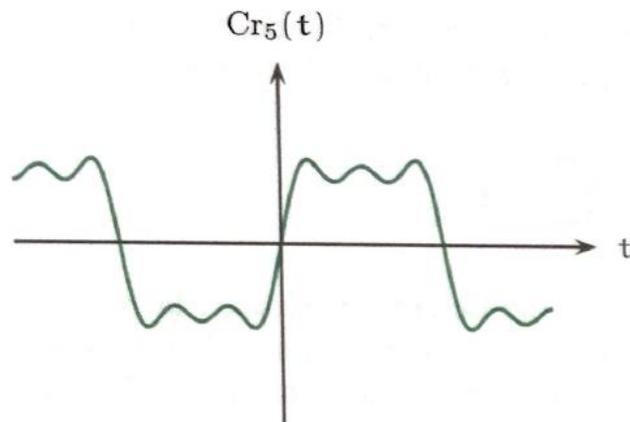
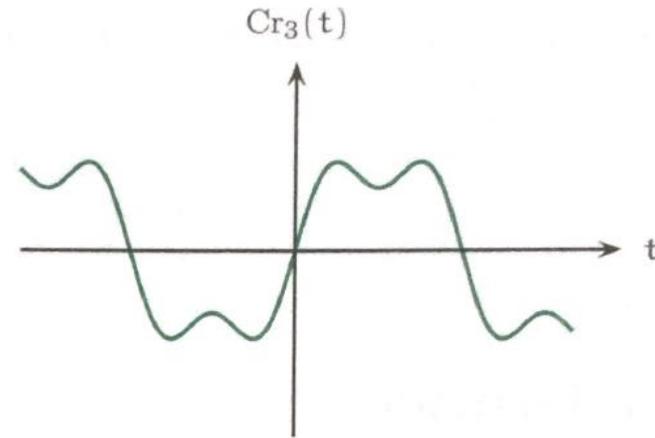
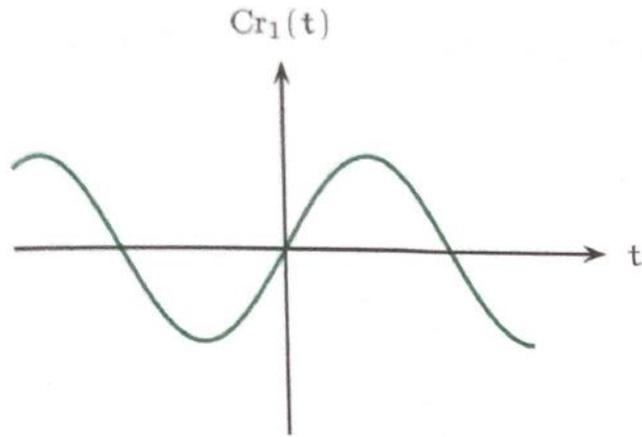
1. Rappel sur l'analyse de Fourier

Signal créneau



1. Rappel sur l'analyse de Fourier

Signal créneau



2. Filtrage linéaire

Bande passante à -3dB

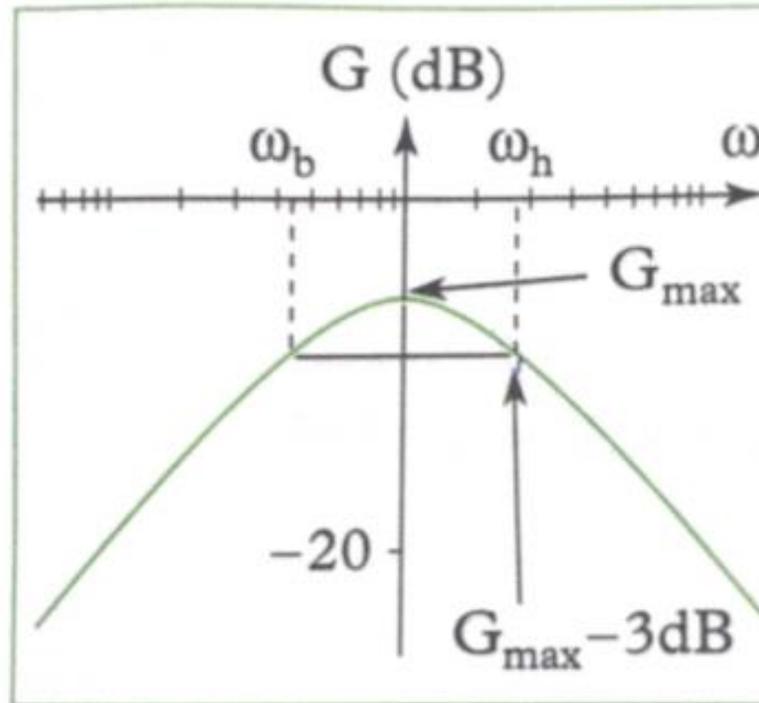
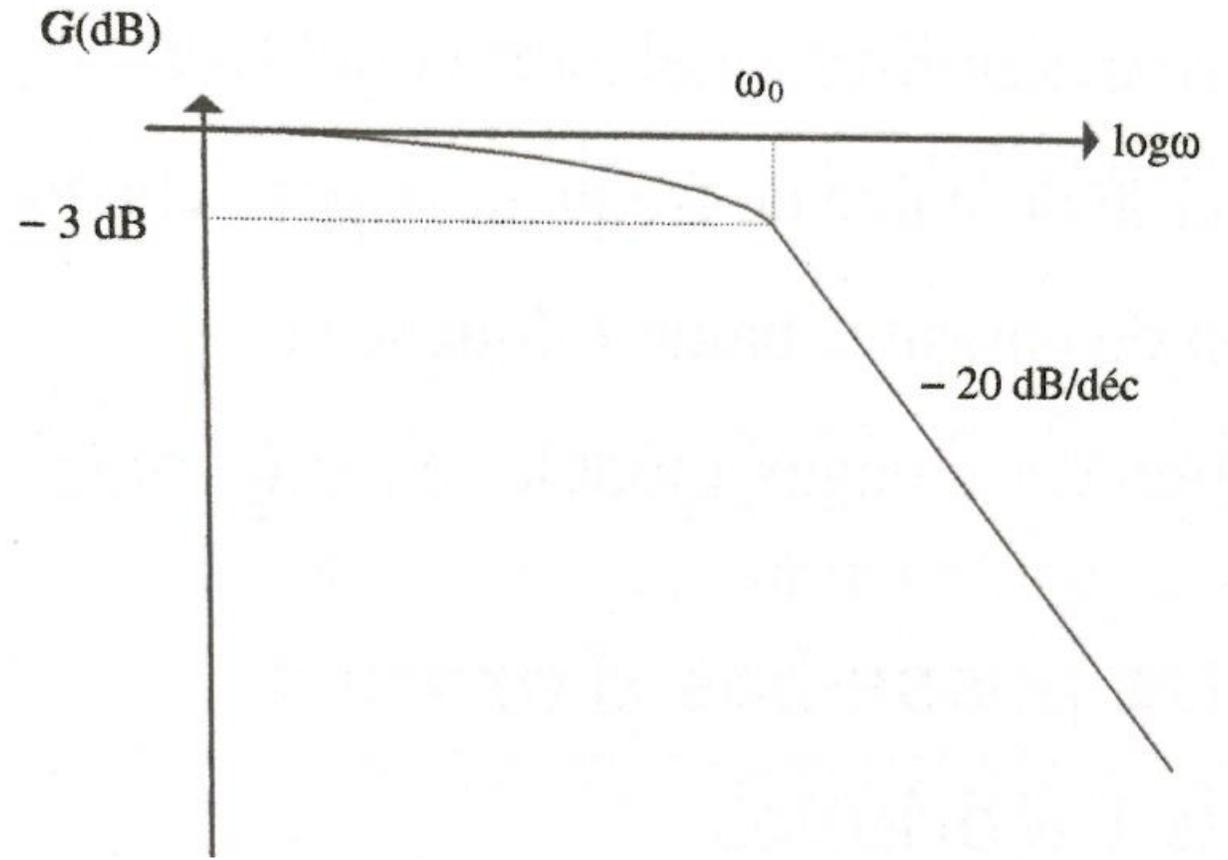
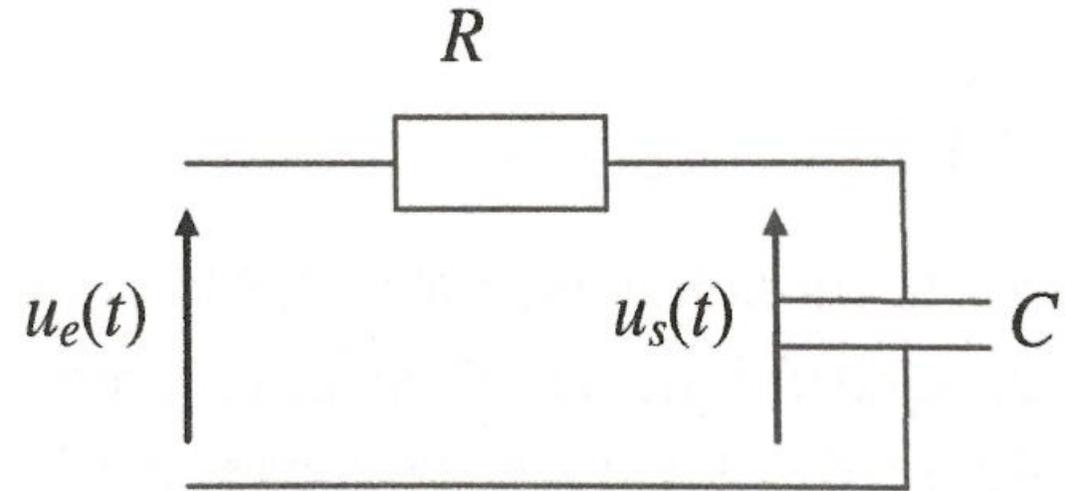


Fig. 13 - Définition de la bande passante à -3 dB .

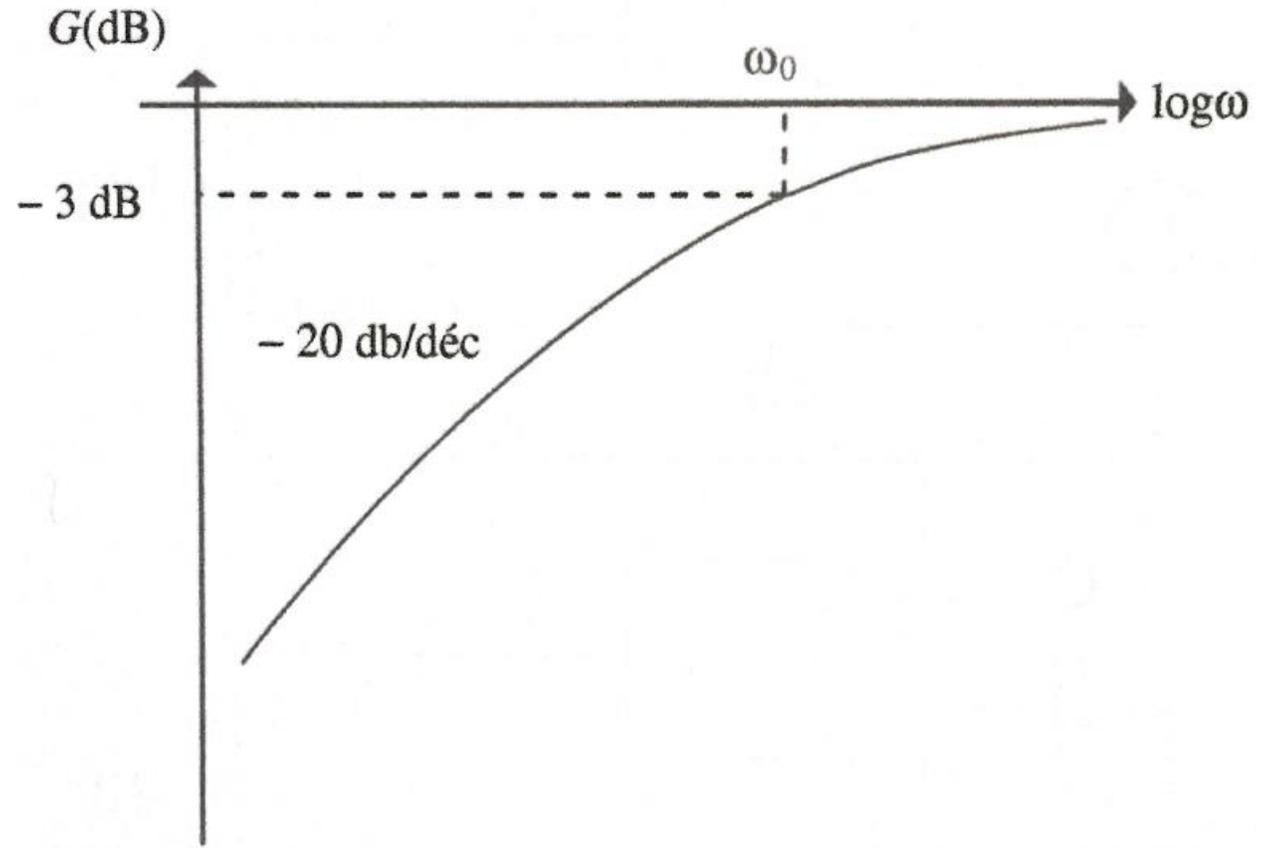
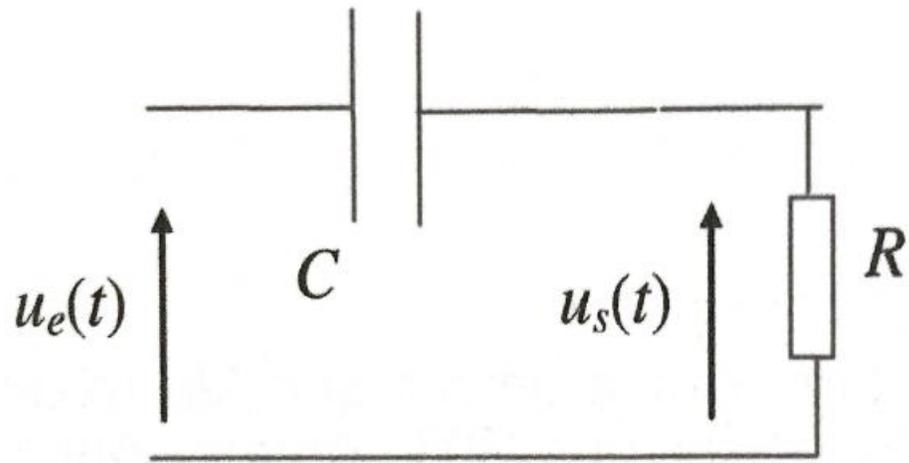
2. Filtrage linéaire

Filtre 1^{er} ordre : Passe-bas



2. Filtrage linéaire

Filtre 1^{er} ordre : Passe-haut



2. Filtrage linéaire

Filtre 2nd ordre : Passe-bas

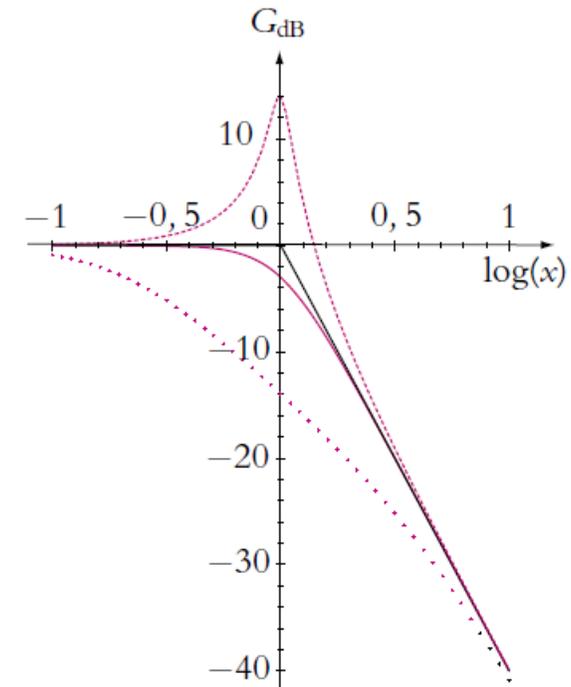
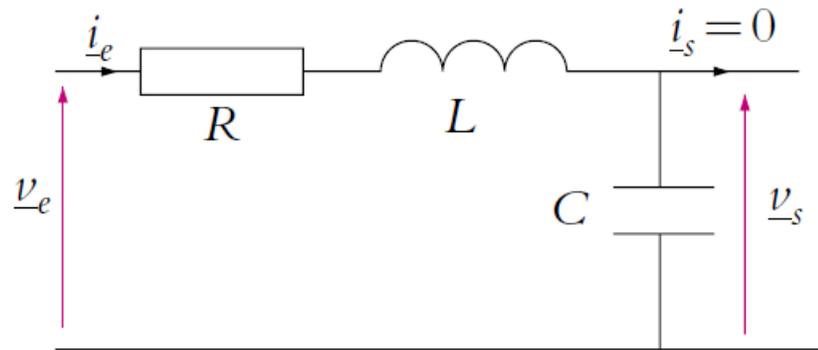


Figure 18.28 Diagramme de Bode en gain d'un filtre passe-bas du second ordre pour différentes valeurs du facteur de qualité : pointillés : $Q = 5$, trait plein : $Q = 1/\sqrt{2}$, croix : $Q = 0,2$.

2. Filtrage linéaire

Filtre 2nd ordre : Passe-haut

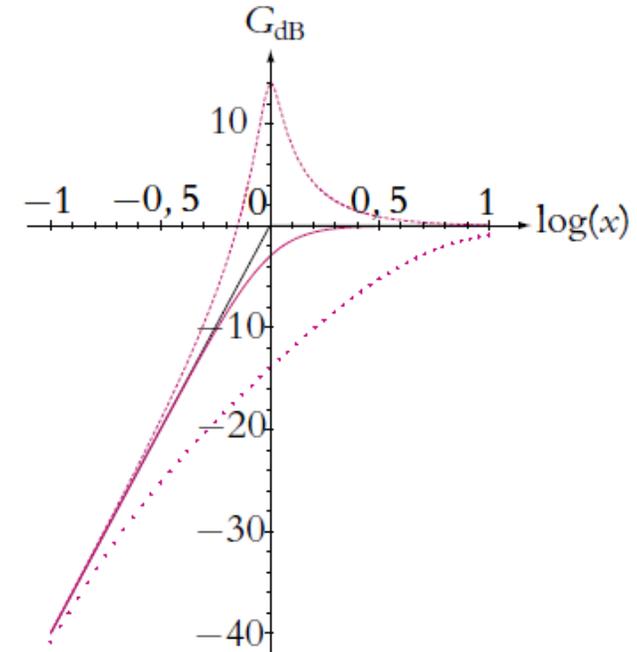
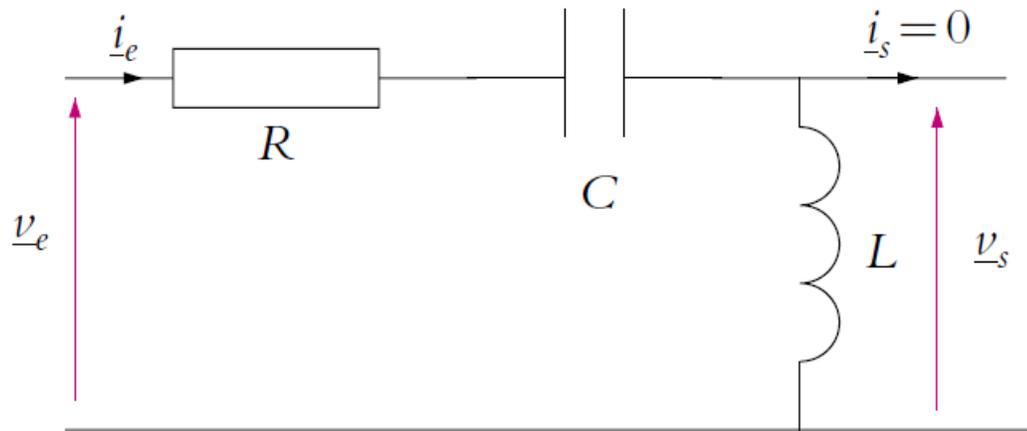


Figure 18.33 Diagramme de Bode en gain d'un filtre passe-haut du second ordre pour différentes valeurs du facteur de qualité : pointillés : $Q = 5$, trait plein : $Q = 1/\sqrt{2}$, croix : $Q = 0,2$.

2. Filtrage linéaire

Filtre 2nd ordre : Passe-bande

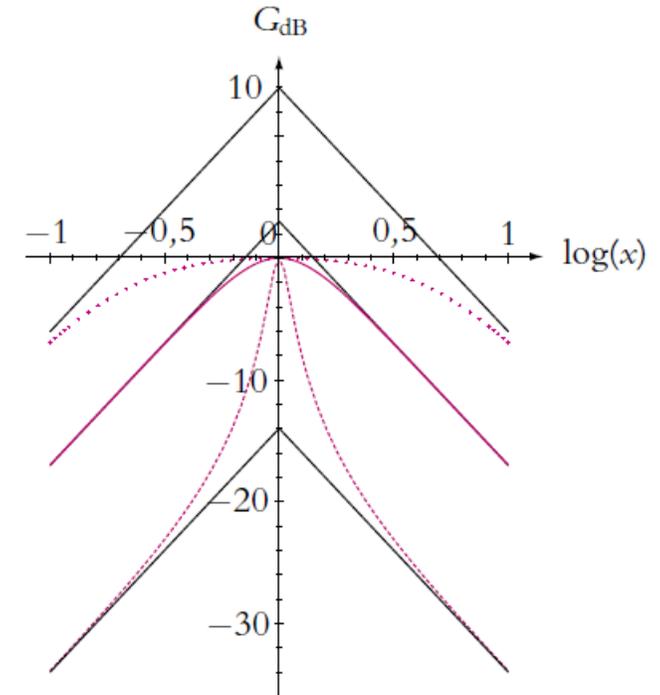
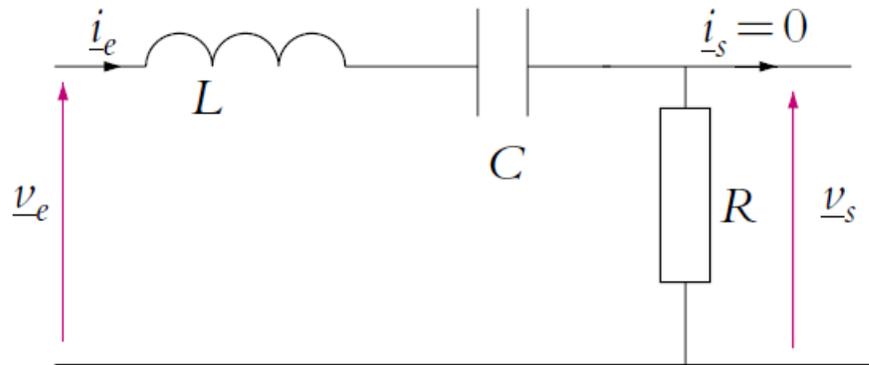
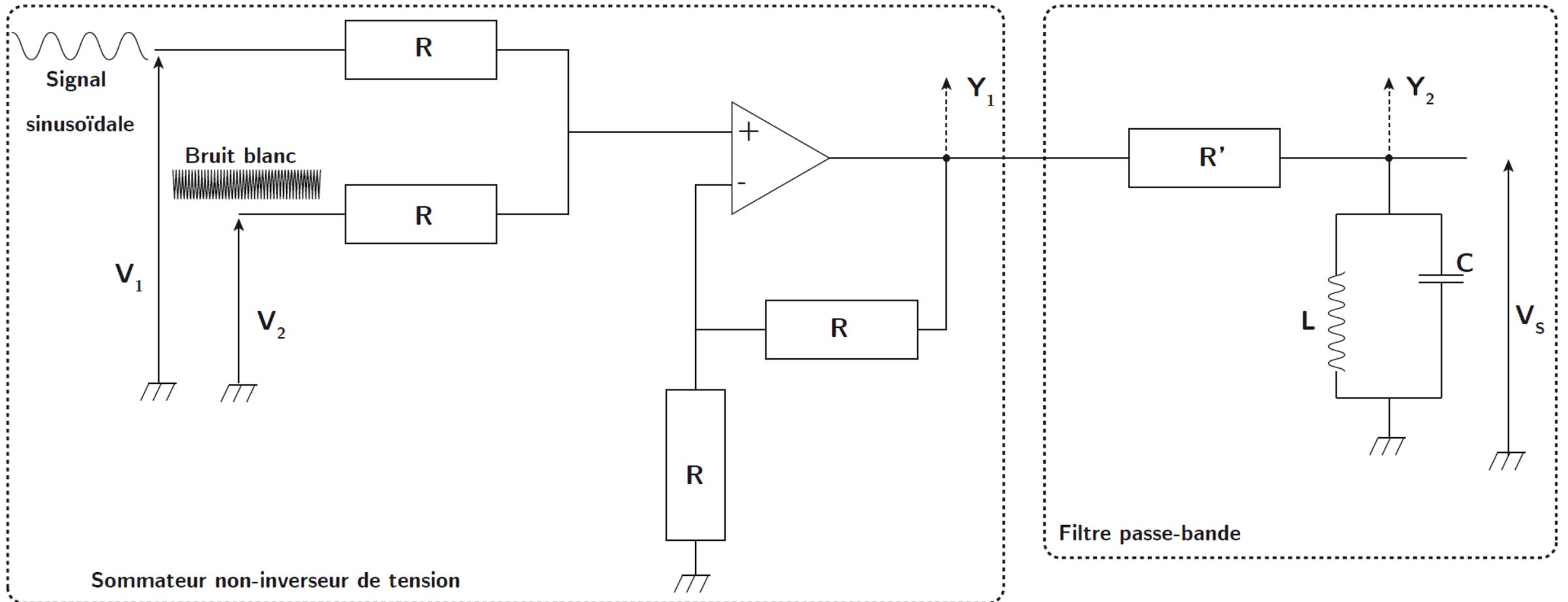


Figure 18.38 Diagramme de Bode en gain d'un filtre passe-bande du second ordre pour différentes valeurs du facteur de qualité : pointillés : $Q = 5$, trait plein : $Q = 1/\sqrt{2}$, croix : $Q = 0,2$.

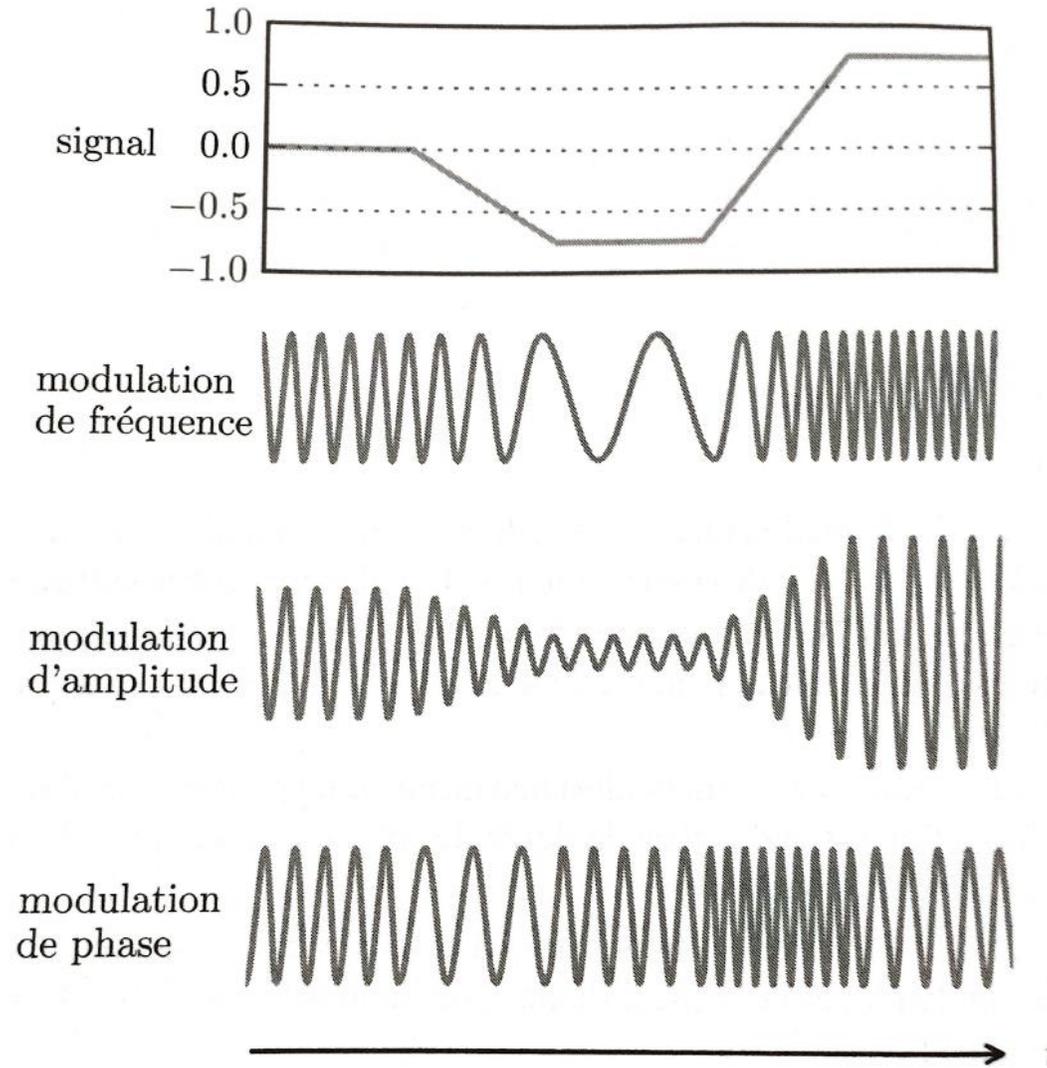
2. Filtrage linéaire

Application du passe-bande 2nd ordre



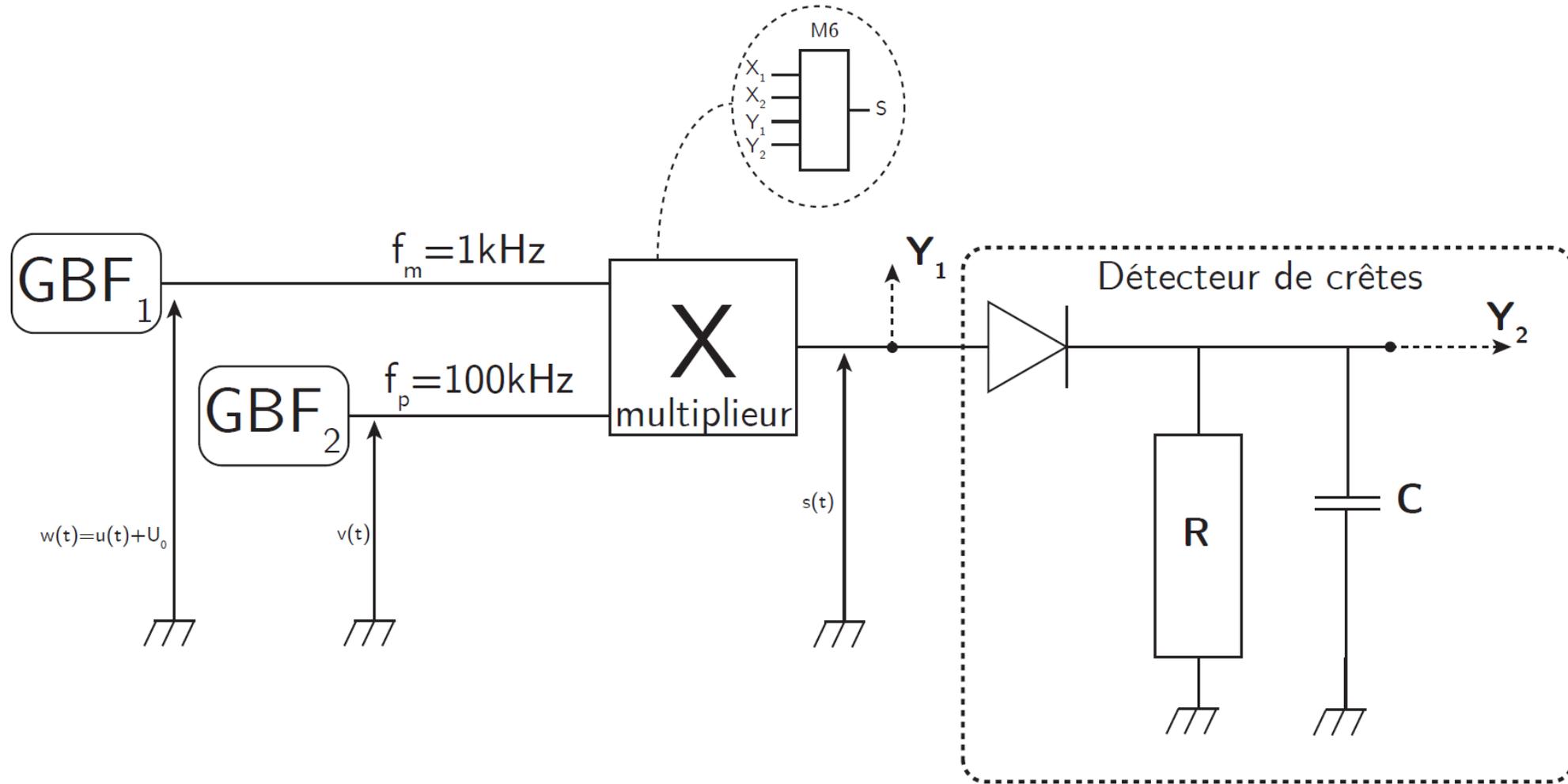
3. Modulation et démodulation

Types de modulation



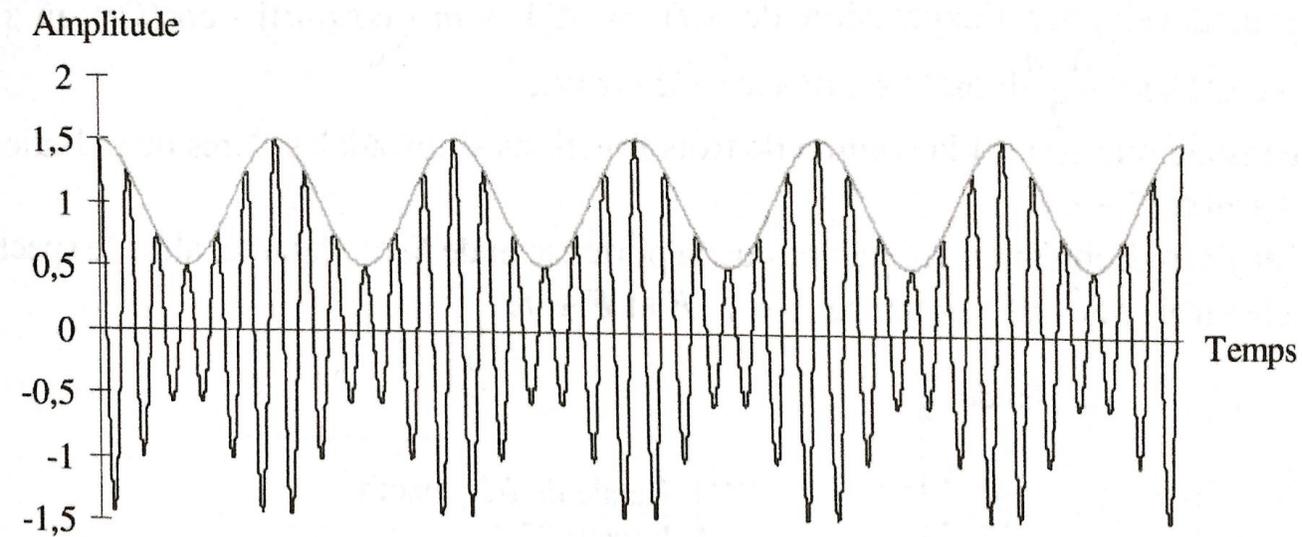
3. Modulation et démodulation

Modulation d'amplitude

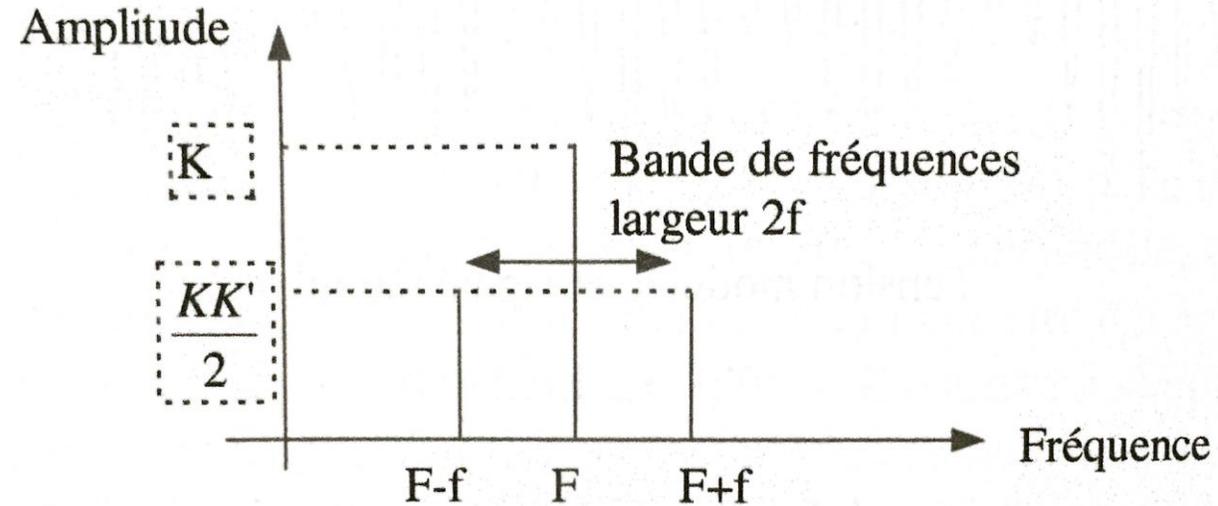


3. Modulation et démodulation

Modulation d'amplitude



Tension modulée et signal modulant



3. Modulation et démodulation

Modulation d'amplitude

