6.2(1) $u_{DSB} = 80[\cos(22\times10^3 t) - 0.5\cos(62\times10^3 t)]\cos(22\times10^6 t)$ (V)

$BW = 2\Omega_{max} = 6\ kHz$

(2) $u_{DSB} = 40\cos(22\times(10^6 t - 10^3 t)) + 40\cos(22\times(10^6 + 10^3)t)$

$-20\cos(22\times(10^6 - 3\times10^3)t) - 20\cos(22(10^6 + 10^3\times3)t)$ (V)

$\therefore u_{SSB} = 40\cos(22\times(10^6 - 10^3)t) - 20\cos(22\times(10^6 - 3\times10^3)t)$ (V)

$BW = 3\ kHz$

若用老师PPT中公式来计算：

$u_{SB} = 10\cos\omega_c t\,(8\cos\Omega_1 t - 4\cos\Omega_2 t) + 10\sin\omega_c t\,(8\sin\Omega_1 t - 4\sin\Omega_2 t)$

$= 80\cos(\omega_c - \Omega_1)t - 40\cos(\omega_c - \Omega_2)t$

$= 80\cos[2\pi\times(10^6 - 10^3)t] - 40\cos[2\pi\times(10^6 - 3\times10^3)t]$

6.7 时变参量分析法

通带宽度大于 2×10^4 rad/s，说明 ω_c，$\omega_c \pm \omega$ 均在通带内

$u_{GS} = -2 + 2\cos10^6 t + 0.2\cos10^4 t$　　$\varphi = \arccos\frac{-3+2}{2} = 120°$

$I_{Dp} = I_{DSS} = 10mA$，$I_{D1} = \alpha_1(\varphi) I_{Dp} = 4.8mA$（折线）

$U_1 = I_{D1}R = 24V$

$g_1 = \frac{\partial i_D}{\partial u_{GS}} = \frac{20}{3}(1 + \frac{u_{GS}}{3})$　　$g_p = \frac{20}{3}\ mS$

$g_1 = g_p\alpha_1(120°) = 3.575\ mS$（折线）

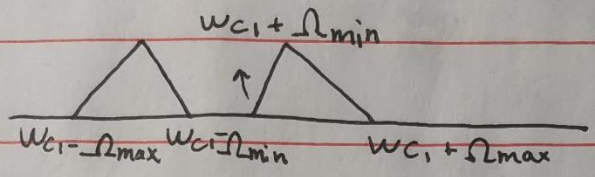
$I_2 = \frac{1}{2}g_1 U_2 = \frac{1}{2}\times3.575\times0.2 = 0.3575\ mA$

$U_2 = I_2 R = 1.79V$

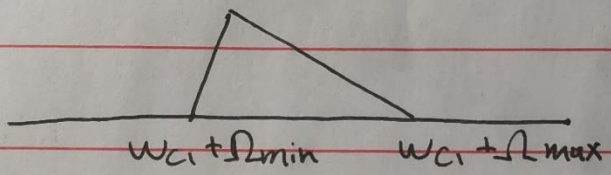
$\therefore u_o(t) = 30 - 24\cos10^6 t - 1.79\cos(10^6 + 10^4)t - 1.79\cos(10^6 - 10^4)t$

$= 30 - 24\cos10^6 t\,(1 + 0.15\cos10^4 t)$ (V)

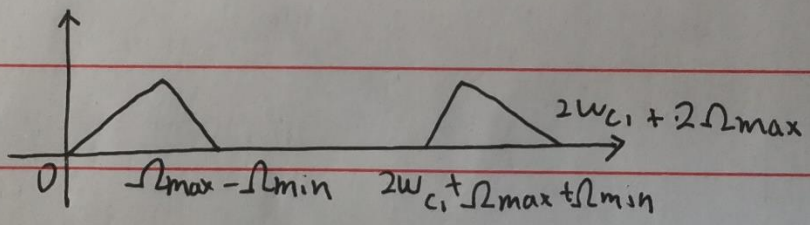
6.12 A:


$\omega_{c1}+\Omega_{min}$
$\omega_{c1}-\Omega_{max}$
$\omega_{c1}-\Omega_{min}$
$\omega_{c1}+\Omega_{max}$

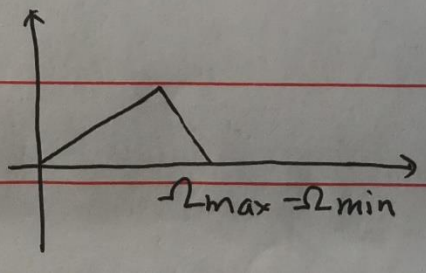
B:


$\omega_{c1}+\Omega_{min}$
$\omega_{c1}+\Omega_{max}$

C:


$2\omega_{c1}+2\Omega_{max}$
0
$\Omega_{max}-\Omega_{min}$
$2\omega_{c1}+\Omega_{max}+\Omega_{min}$

D:


$\Omega_{max}-\Omega_{min}$