



$$\textcircled{1} \begin{cases} \Delta f = 0 \ (\gamma_b = 7 \text{ dB}) \\ \Delta f = 30 \text{ MHz} \ (\gamma_b = 7 \text{ dB}) \\ \Delta f = 3 \text{ GHz} \ (\gamma_b = 7 \text{ dB}) \end{cases}$$

$$\textcircled{2} \begin{cases} \Delta f = 0 \ (\gamma_b = 10 \text{ dB}) \\ \Delta f = 30 \text{ MHz} \ (\gamma_b = 10 \text{ dB}) \\ \Delta f = 3 \text{ GHz} \ (\gamma_b = 10 \text{ dB}) \end{cases}$$

$$\textcircled{3} \begin{cases} \Delta f = 0 \ (\gamma_b = 13 \text{ dB}) \\ \Delta f = 30 \text{ MHz} \ (\gamma_b = 13 \text{ dB}) \\ \Delta f = 3 \text{ GHz} \ (\gamma_b = 13 \text{ dB}) \end{cases}$$