

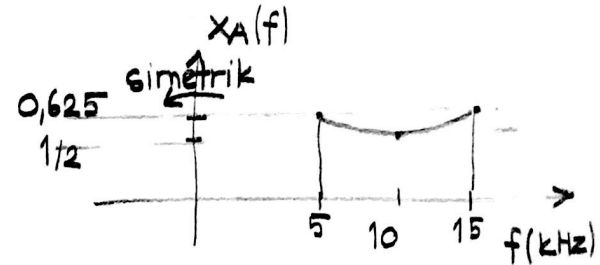
$$f=0 \rightarrow H(f) = \frac{1}{2}$$

$$f=5 \text{ kHz} \rightarrow H(f) = 0,625$$

$$x_A(f) = \underbrace{x_1(f)H(f)}_{x_H(f)} * F(2\cos(2\pi 10^4 t))$$

$$F(2\cos(2\pi 10^4 t)) = \delta(f - 2\pi 10^4) + \delta(f + 2\pi 10^4)$$

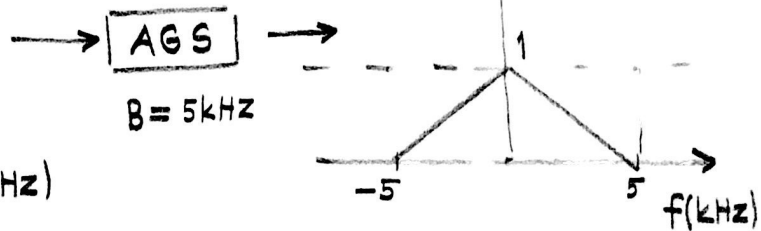
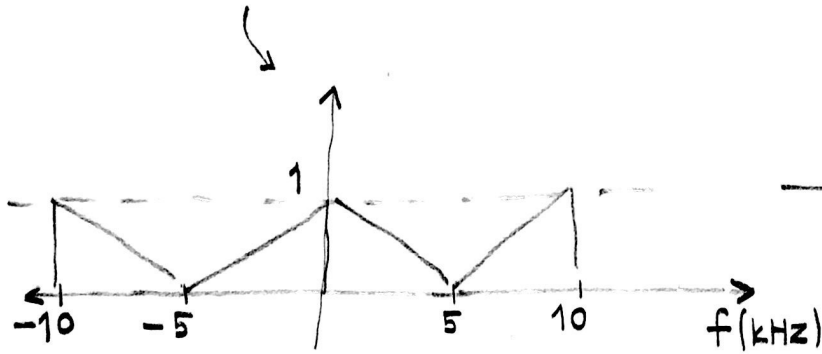
$$x_A(f) = \int_{-\infty}^{\infty} x_H(\tau) (\delta(f - 2\pi 10^4 - \tau) + \delta(f + 2\pi 10^4 - \tau)) d\tau$$



$$F(x_2(t) 2\cos(2\pi 5000 t)) \rightarrow \boxed{\text{AGS}} \rightarrow x_B(t)$$

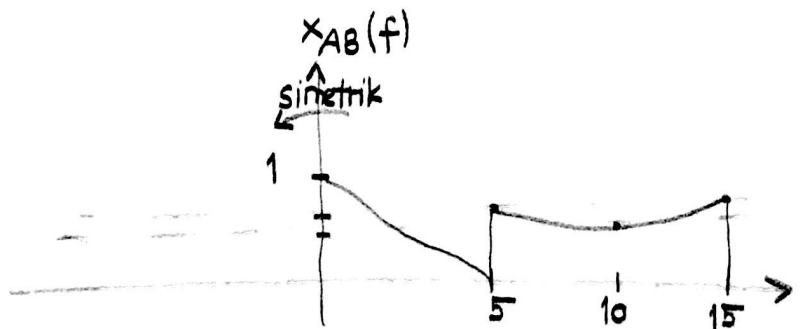
$B = 5 \text{ kHz}$

$$x_2(f - 2\pi 5 \cdot 10^3) + x_2(f + 2\pi 5 \cdot 10^3) \rightarrow \boxed{\text{AGS}}$$



$$x_{AB}(f) = x_A(f) + x_B(f)$$

FT doğrusal olduğu için
zamanda toplama frekansta
toplamaya eşittir.



B. Tek yan bant modülasyonu en az bant genişliğini gerektirmektedir, bu modülasyon kullanılabilir.