

Parte 1

$K_{aAm} = 1$ $f_c = 375 \text{ MHz}$
 $P_T = (-29 \text{ dBm}) \times 2 + (-30,98) \times 9$
 $P_T = (3,98 \times 10^{-9}) \times 2 + (9,097 \times 10^{-9}) \times 9 = 1,139 \times 10^{-8} \text{ W}$
 $P_T = -19,35 \text{ dBm}$

$K_{aAm} = 1$ $N_{db} = 20 \log \left(\frac{K_{aAm}}{2} \right)$
 $-6,12 \text{ dB} = 20 \log \left(\frac{K_{aAm}}{2} \right)$
 $\frac{-6,12 \text{ dB}}{20} = \log \left(\frac{K_{aAm}}{2} \right)$
 $\frac{-6,12}{20} = \log \left(\frac{K_{aAm}}{2} \right)$
 $K_{aAm} = 0,98 \approx 1$

Caso 2: $K_{aAm} = 1$ $f_c = 375 \text{ MHz}$
 $K_{aAm} = 3$
 $P_T = (-29 \text{ dBm}) \times 2 + (-30,98) \times 9 =$
 $3,98 \times 10^{-9} \times 2 + 8,356 \times 10^{-9} \times 9 = 9,130 \times 10^{-8} = -13,83 \text{ dBm}$
 $3,39 \text{ dB} = 20 \log \left(\frac{K_{aAm}}{2} \right) = 2,95 \approx 3$



Caso 3 $K_A A_m < 1$ $f_c = 37 \text{ MHz}$ $V_c = \text{bajo}$
 $K_A A_m = 0,3$

$$P_r = (-29,95 \text{ dBm}) \times 2 + (-40,97 \text{ dBm}) \times 4$$

$$3,589 \times 10^{-6} \times 2 \quad 7,998 \times 10^{-9} \times 4$$

$$P_r = -29,25 \text{ dBm}$$

$$-16 \text{ dB} = 20 \log\left(\frac{K_A A_m}{2}\right) = 0,31$$

