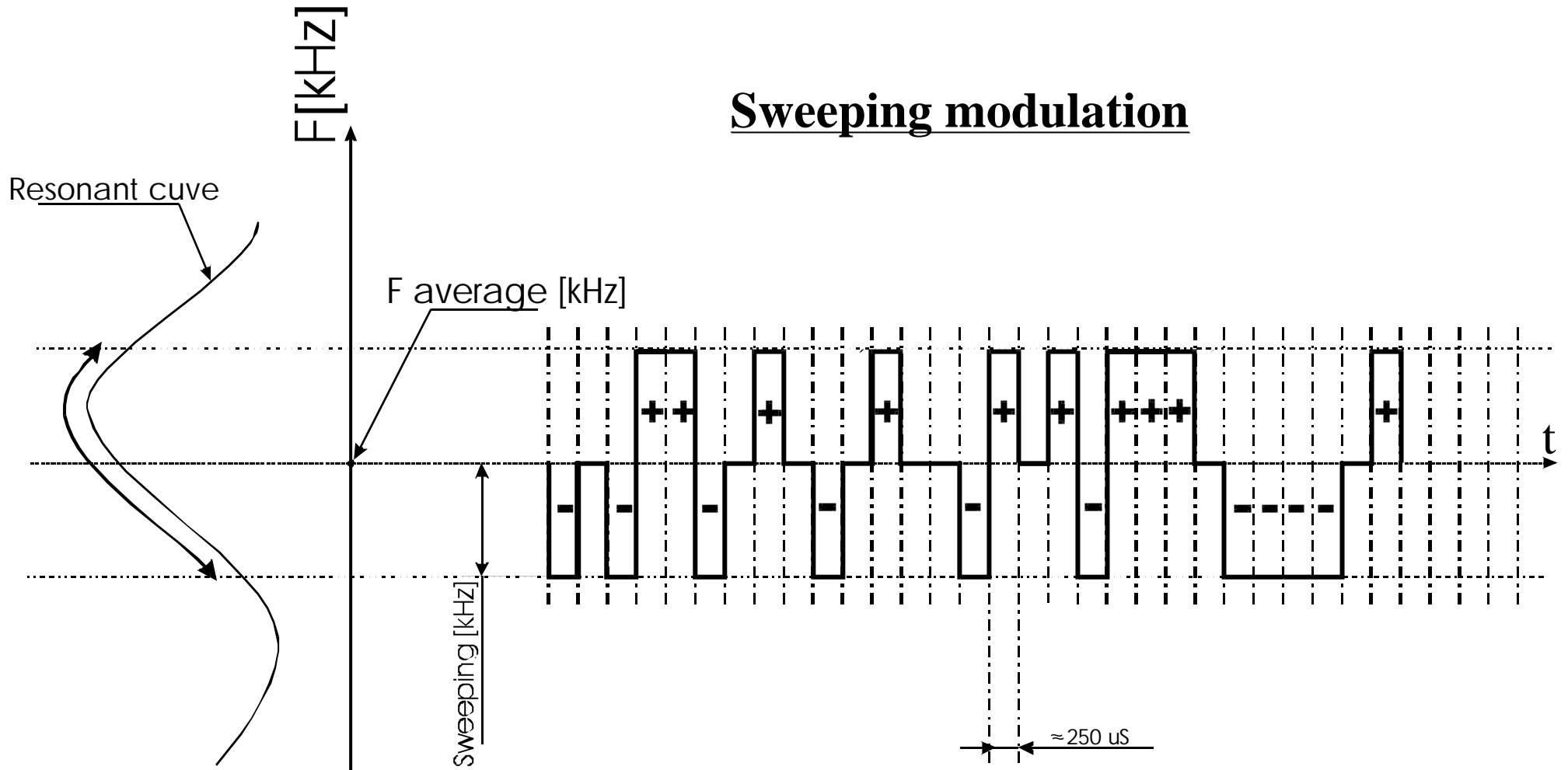


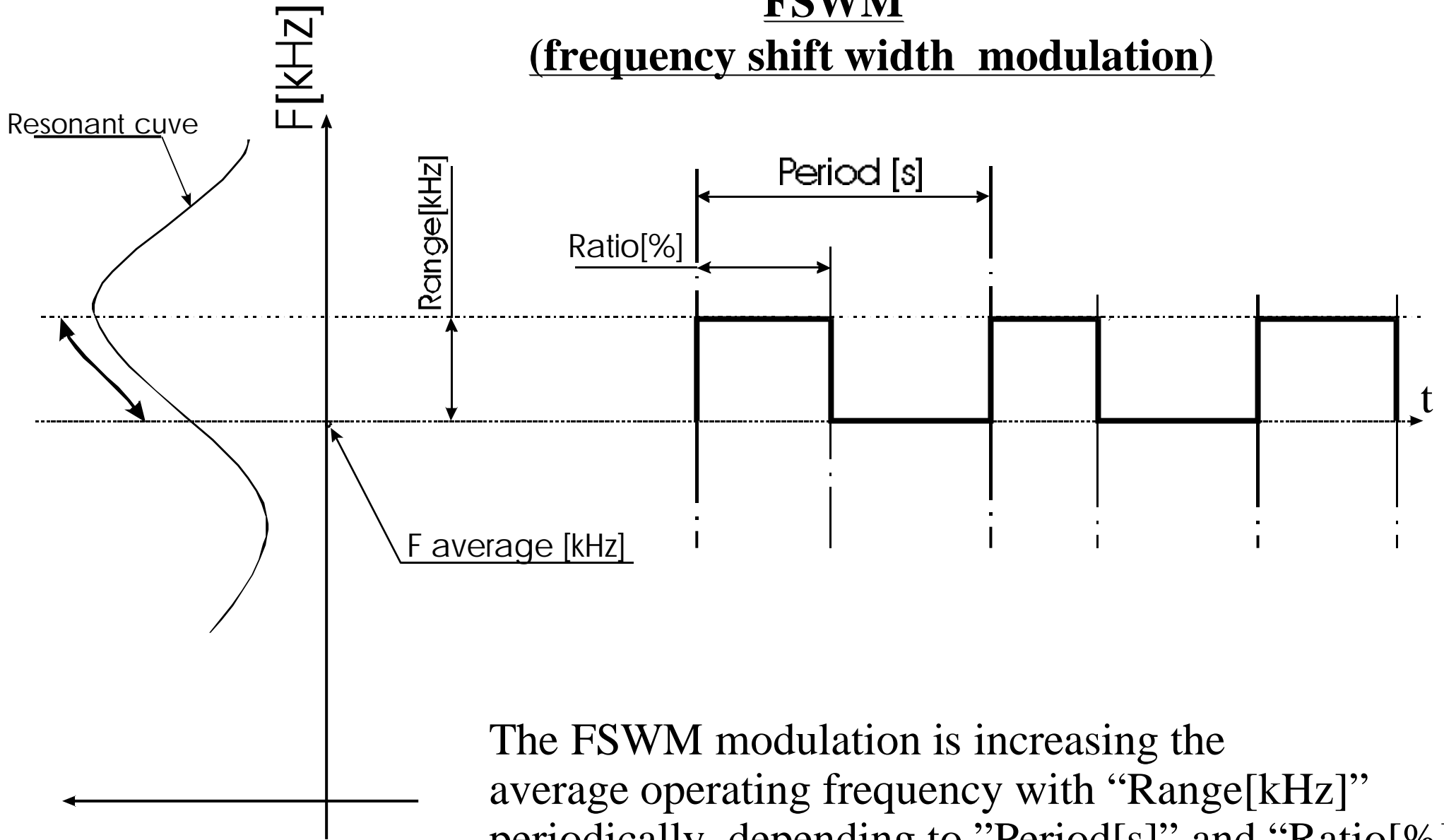
## Sweeping modulation



The sweeping modulation is increasing or decreasing (by random low) the average operating frequency.

$$F_{\text{operating}} [\text{kHz}] = F_{\text{average}} [\text{kHz}] + /- \text{Sweeping} [\text{kHz}]$$

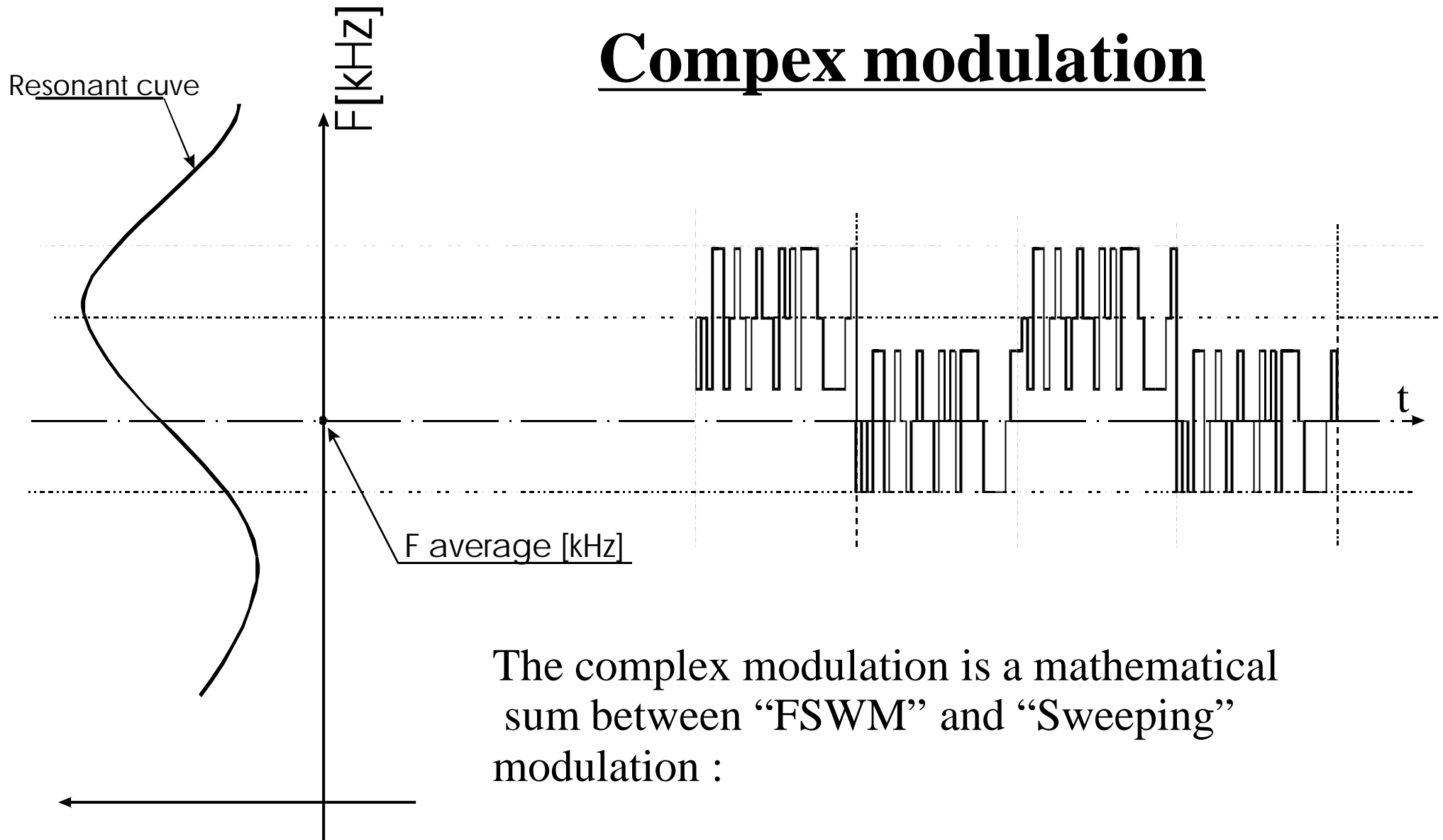
# FSWM (frequency shift width modulation)



The FSWM modulation is increasing the average operating frequency with “Range[kHz]” periodically ,depending to ”Period[s]” and “Ratio[%]”.

$$F_{\text{operating}} [\text{kHz}] = F_{\text{average}} [\text{kHz}] + \text{Range} [\text{kHz}]$$

# Complex modulation



The complex modulation is a mathematical sum between “FSWM” and “Sweeping” modulation :

$$F_{\text{operating}} [\text{kHz}] = F_{\text{average}} [\text{kHz}] + \text{FSWMRange} [\text{kHz}] + /- \text{Sweeping Range} [\text{kHz}]$$