### Low Pass Filter Example

## Types of Filters

#### Low Pass filter

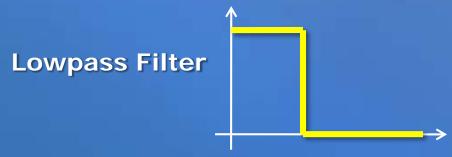
- Passes frequencies below f<sub>co</sub>
  - f<sub>co</sub> = cutoff frequency
- Emphasizes "bass"

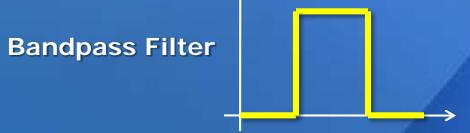
#### **Band Pass filter**

- Passes frequencies between fland fh
  - $f_1 = low frequency cutoff$
  - f<sub>h</sub> = high frequency cutoff
- Emphasizes "midrange"

### **High Pass filter**

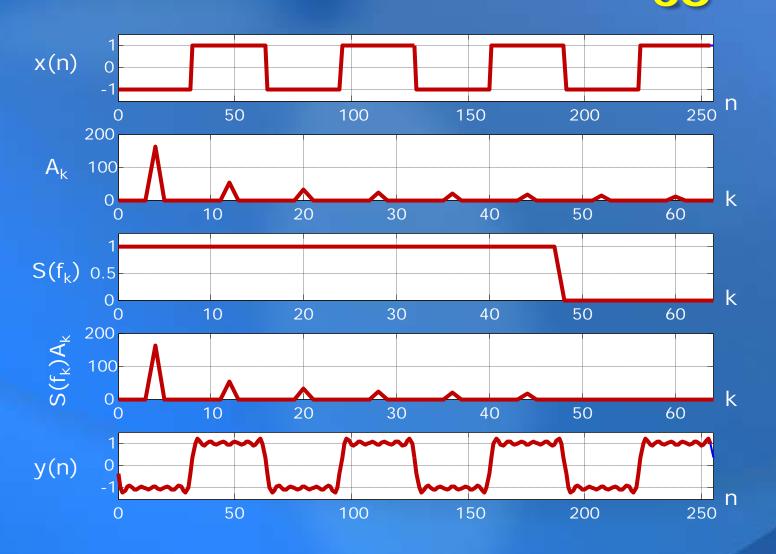
- Passes frequencies above f<sub>co</sub>
- Emphasizes "treble"

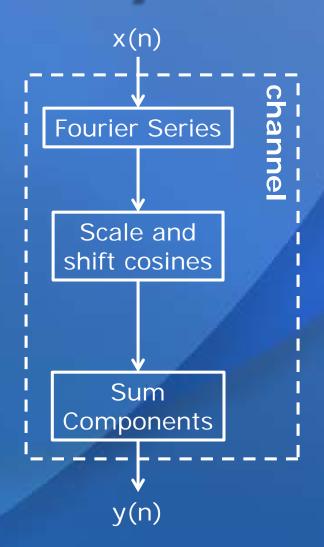




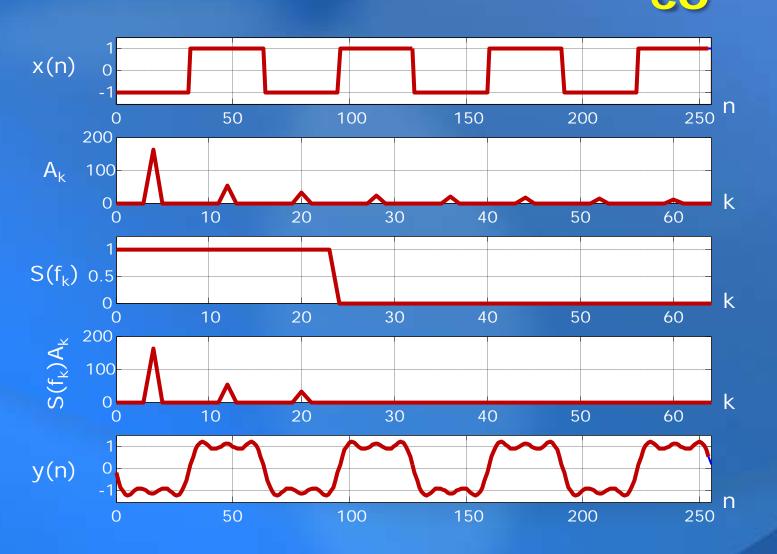


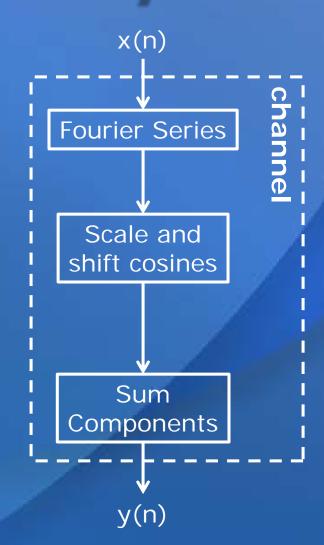
## Low Pass Filter $f_{co} = 48/256$





## Low Pass Filter $f_{co} = 24/256$





# Low Pass Filter $f_{co} = 8/256$

