**PASSIVE FILTERS**

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| **Passive Filters** | **General** | **Types** | **Features** |
| **Low-pass filters** |  | **Series RL circuit** |  |
| **Series RC circuit** |  |
| **High-pass filters** |  | **Series RL circuit** |  |
| **Series RC circuit** |  |
| **Band-pass filters** |  | **Series RLC circuit** |  |
| **Parallel RLC circuit** |  |
| **Effect of Nonideal Voltage Source** |  |
| **Summary** |  |
| **Band-reject filters** |  | **Series RLC circuit** |  |
| **Summary** |  |

**ACTIVE FILTERS**

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| **Active Filters** | **Description** |
| **First-order low-pass filter** |  |
| **First-order high-pass filter** |  |
| **Scaling** | Scaling factor:  Thông thường thì và , Khi đó: |
| **First-order band-pass filter** |  |
| **First-order band-reject filter** |  |
| **Butterworth Filters** |  |