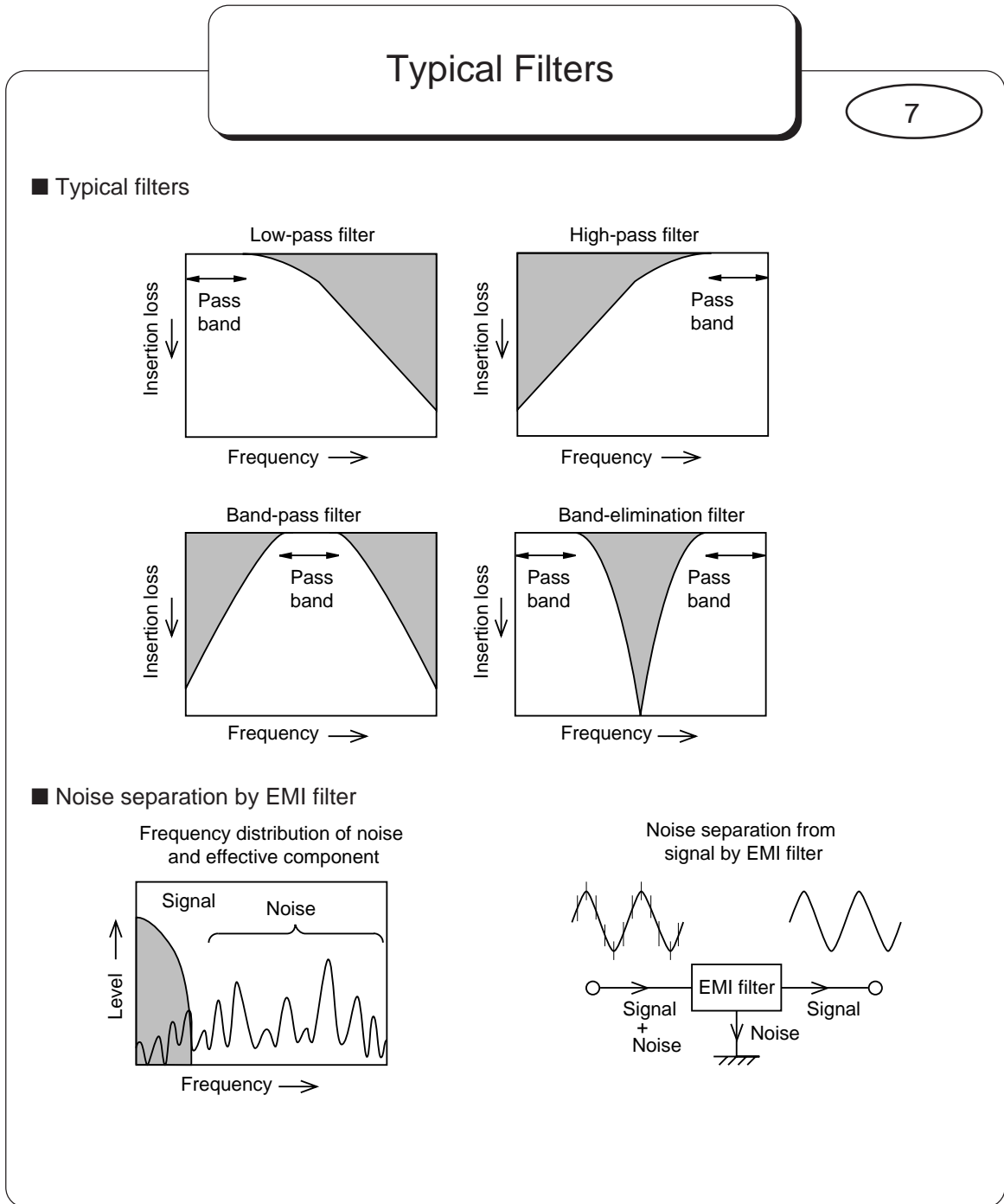


3. Noise Suppression by Low-pass Filters

3.1. Typical Filters



Filters used to pick out the desired signals are classified into the following four types.

**Low-pass filter (LPF):**

A filter which passes signals at frequencies lower than a specified frequency but attenuates signals at frequencies higher than the specified frequency.

**High-pass filter (HPF):**

A filter which passes signals at frequencies higher than a specified frequency but attenuates signals with frequencies lower than the specified frequency.

**Band-pass filter (BPF):**

A filter which only passes signals within a specified range of frequencies.

**Band-elimination filter (BEF):**

Filter which does not pass signals within a specified range of frequencies.

Most noise emitted from electronic equipment is at frequencies higher than circuit signals. Therefore, low-pass filters, which only pass signals with frequencies lower than a specified frequency and attenuates signals with frequencies higher than this frequency, are generally used as EMI filters.