8.6 Stepped-Impedance Low-Pass Filters

Reading Assignment: *pp. 412-416*

Another distributed element realization of a lumped element low-pass filter designs is the **stepped-impedance** low-pass filter.

These filters are also know as **"hi-Z, low-Z"** filters, and we're about to find out why!

HO: STEPPED-IMPEDANCE LOW-PASS FILTERS

Q: *Are there **other** methods for building microwave filters?*

A: There are a **bundle** of them!

All distributed elements (e.g., transmission lines, coupled lines, resonators, stubs) exhibit **some** frequency dependency. If we are clever, we can construct these structures in a way that their frequency dependency (i.e., $S_{21}(\omega)$) conforms to a desirable function of ω.

Other examples of filter realizations—ones applicable to **band-pass** filters—are discussed in sections **8.7** and **8.8** of your book.