Coaxial Connectors

There are many types of connectors that are used to connect coaxial lines to RF/microwave devices. They include:

**SMA**
The workhorse microwave connector. Small size, but works well to > 20 GHz. By microwave standards, moderately priced.

**BNC**
The workhorse RF connector. Relatively small and cheap, and easy to connect. Don’t use this connector past 2 GHz!

**F**
A poorman’s BNC. The RF connector used on most consumer products such as TVs. Cheap, but difficult to connect and not reliable.
**N**
The original microwave connector. Good performance (up to 18GHz), and moderate cost, but large (about 2 cm in diameter)! However, can handle greater power than SMA.

**UHF**
The poorman’s N. About the same size, although reduced reliability and performance.

**RCA**
Not really an RF connector. Used primarily in consumer application for video and audio signals (i.e., <20 MHz). Cheap and easy to connect.

**APC-7 and APC-3.5**
The top of the line connector. Best performance, but cost big $$$s. Used primarily in test equipment (e.g., network analyzers). 3.5 can work to nearly 40 GHz.