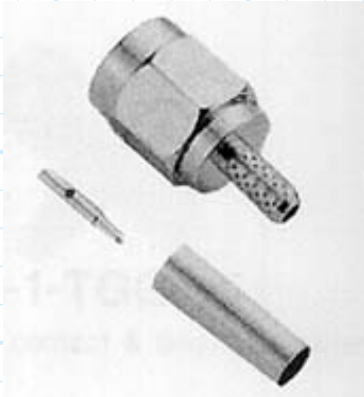


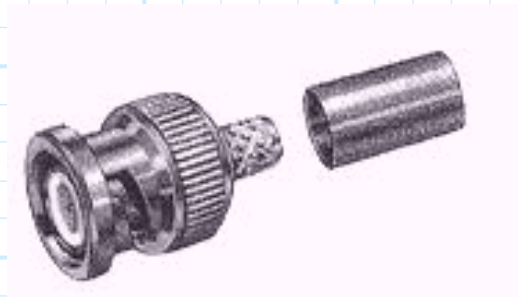
# Coaxial Connectors

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!



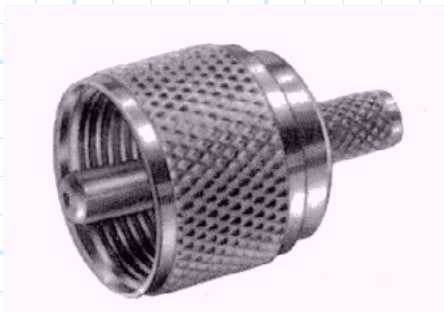
## F

A poorman's BNC. The RF connector used on most consumer products such as TVs. Cheap, but difficult to connect and not reliable.



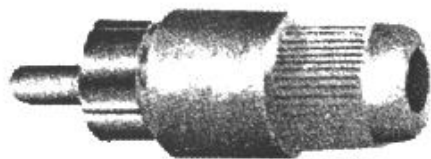
## N

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 \$\$\$**. Used primarily in test equipment (e.g., network analyzers). 3.5 can work to nearly 40 GHz.