

Video Demonstration: TWT Magnetron



This microwave tube is used as microwave RF power amplifier. The main benefits of **Traveling Wave Tube(TWT)** is wide bandwidth of operation and can generate hundreds and even thousands of watts. TWTs can also be used as both continuous and pulsed mode of operation. Length of this tube is about 1 ft to few feet, many wavelengths to the operating frequency.

Let's see how it works. There is a coil surrounding the tube. Electron beam passes through the center of the helix due to magnets and they are tightly coupled. The microwave signal need to be amplified is applied at the cathode end of helix. The amplified output is taken from the collector end of the helix.

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