

* It is a Low power microwave amplifier

High Power microwave amplifier

* Linear beam (or) O-type device

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* It uses resonant cavity structure

It uses non-resonant slow wave structure

* Narrow bandwidth device

Wide bandwidth

* The interaction of electron beam and RF field

The interaction of electron beam and RF field

* The interaction of electron beam and RF field occurs only at the cavities

The interaction of electron beam and RF field is continuous over the entire length of the tube

* There is no coupling effect between cavities

There is a coupling effect in a slow wave structure.

* Wave is not propagating

Wave is propagating through helical structure

* Bunching Process takes place

No Bunching process

* Low output power

High output power

* Power gain : 30 dB

Power gain : 60 dB

* Applications:

→ UHF TV transmitters

→ Radar Transmitters

Applications:-

→ High power satellite

transponder

→ Broadband microwave