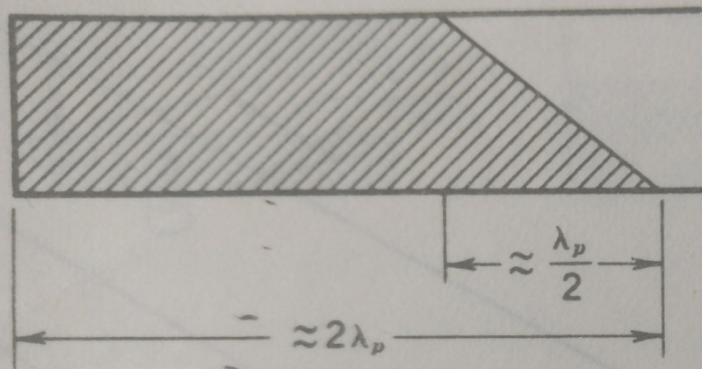
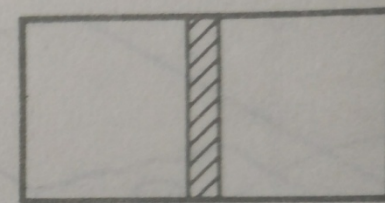


TERMINATORS

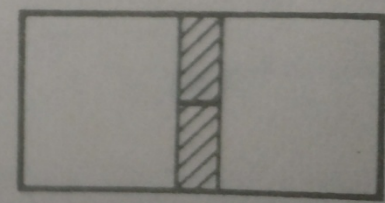
Terminator is a device which is connected to the last peripheral device in a sequence . It absorb incoming waves completely and prevent a signal from reflecting back from open-ended or unused ports.



(a)



(b)



a) Single Taper

b) Double Taper

Resistive termination is a length of lossy dielectric fitted in at the end of the waveguide and tapered very gradually (with the sharp end pointed at the incoming wave) so as not to cause reflections.

Such a lossy vane may occupy the whole width of the waveguide, or perhaps just the center of the waveguide end, The taper may be single or double, often having a length of , overall vane length of about two wavelength .

It is often made of a dielectric slab such as glass, with an outside coating of carbon film or aquadag.

For high-power application, such a termination may have radiating fins external to the waveguide , through which power applied to the termination may be dissipated or conducted away by forced-air cooling.

ATTENUATORS

Reduces the microwave power

Types:

A] Fix type

B] Variable type:

MOVABLE VAN ATTENUATOR

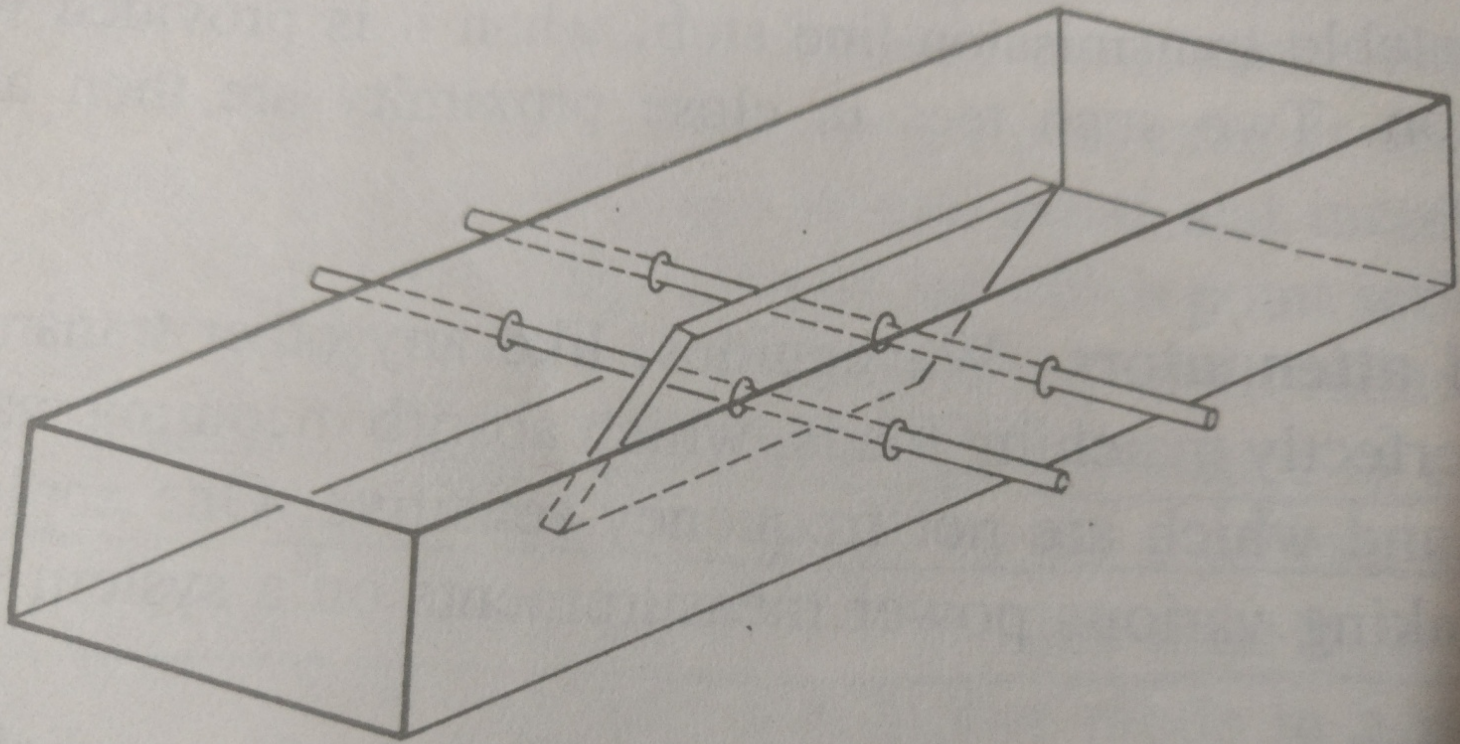


FIGURE 10-33 Movable vane attenuator.

The vane is made movable and used as a variable attenuator ,

It will now be tapered at both ends and situated in the middle of a waveguide

It may be moved laterally from the center of the waveguide, where it will provide maximum attenuation, to the edges, where attenuation is considerably reduced because the electric field intensity there is much lower for the dominant mode.

To minimize reflections from the mounting rods, they are made perpendicular to the electric field, and placed apart so that reflections from one will tend to cancel those from the other.

FLAP ATTENUATOR

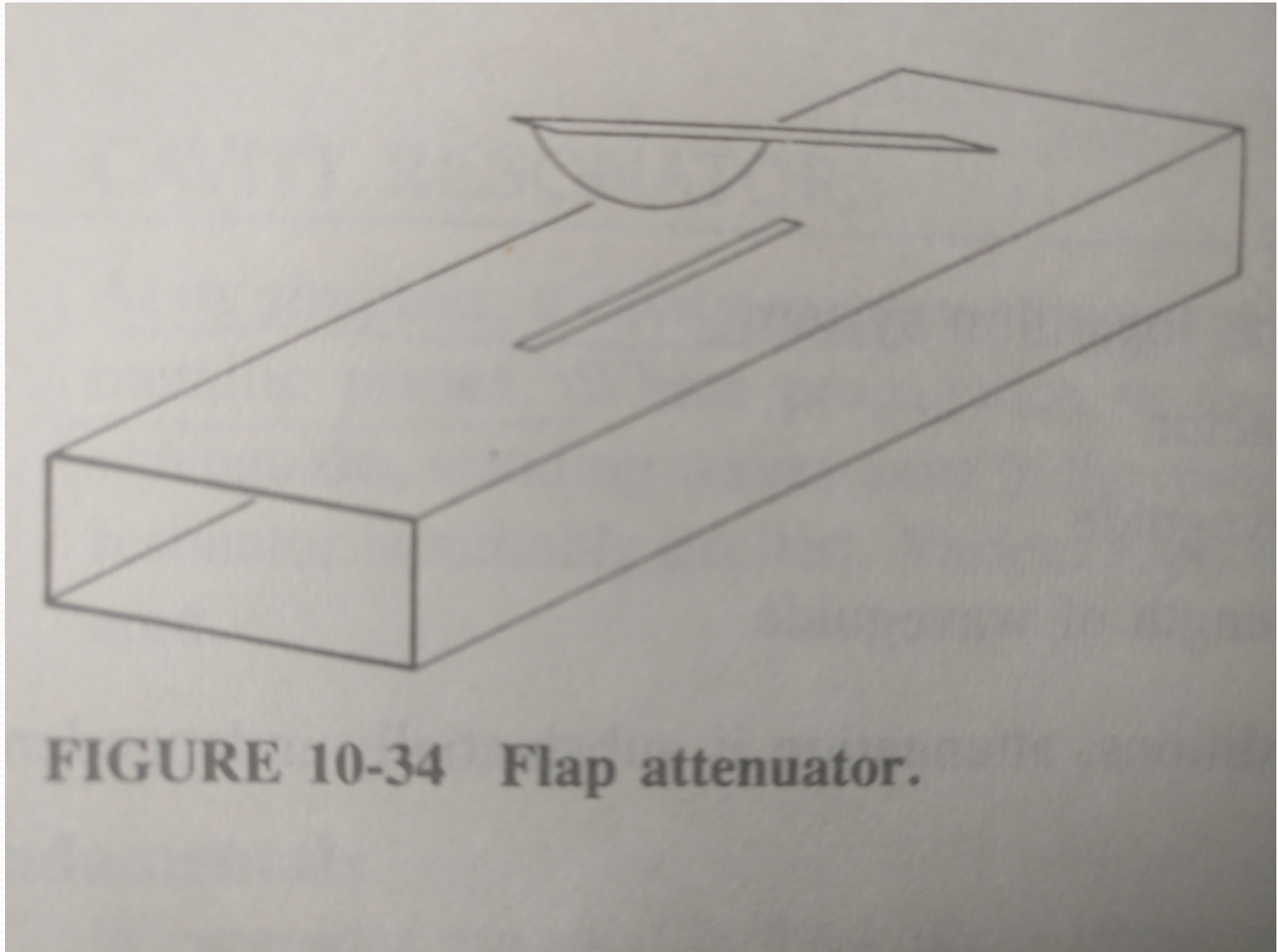



FIGURE 10-34 Flap attenuator.

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- Flap attenuator , is variable attenuator .
 - A resistive element is mounted on a hinged arm, allowing it to descend into the center of the waveguide through a suitable longitudinal slot.

□ The support for the flap attenuator is simpler than for the vane.

The depth of insertion decide the attenuation,

□ Dielectric is shaped to make the attenuation vary linearly with depth of insertion.



THANKS....

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