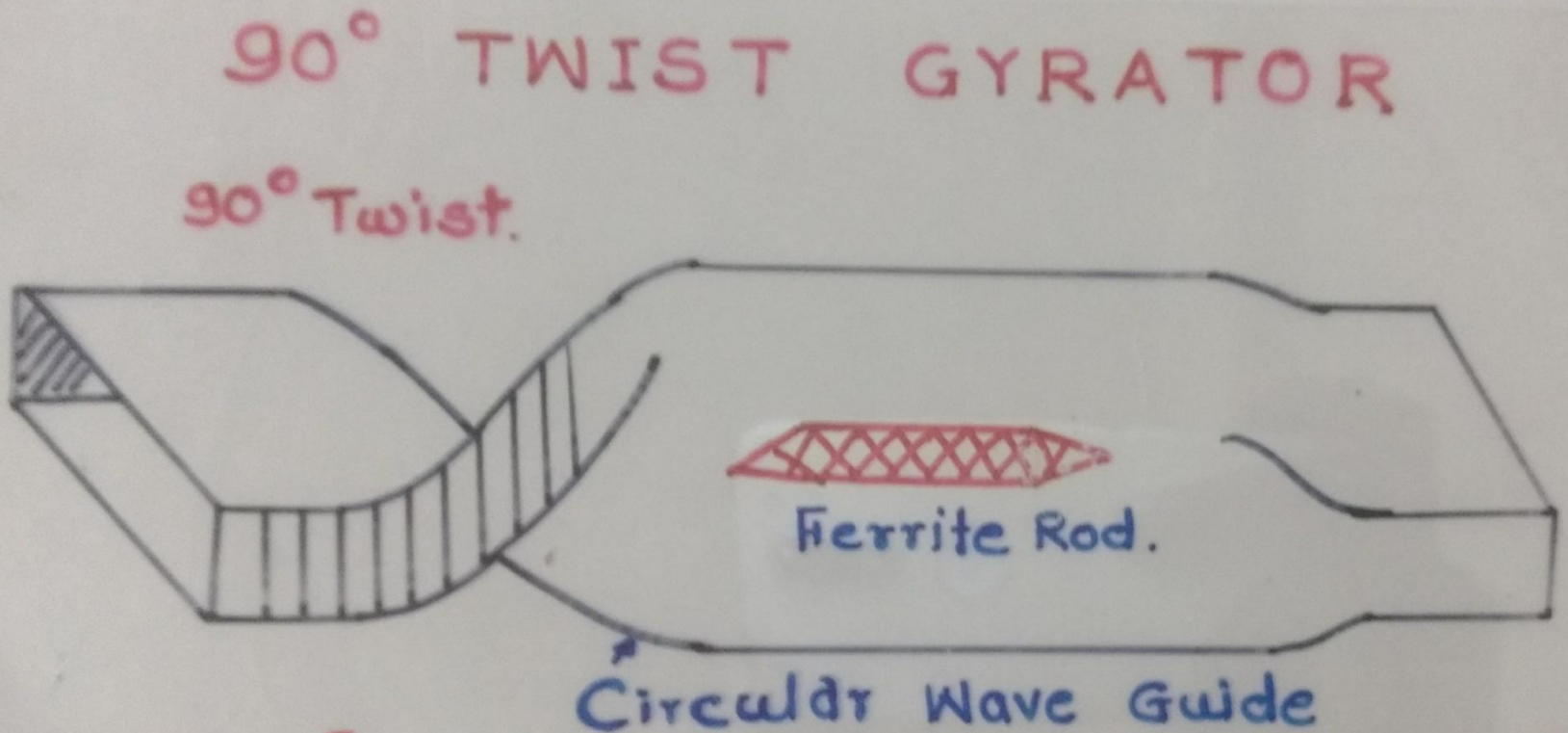


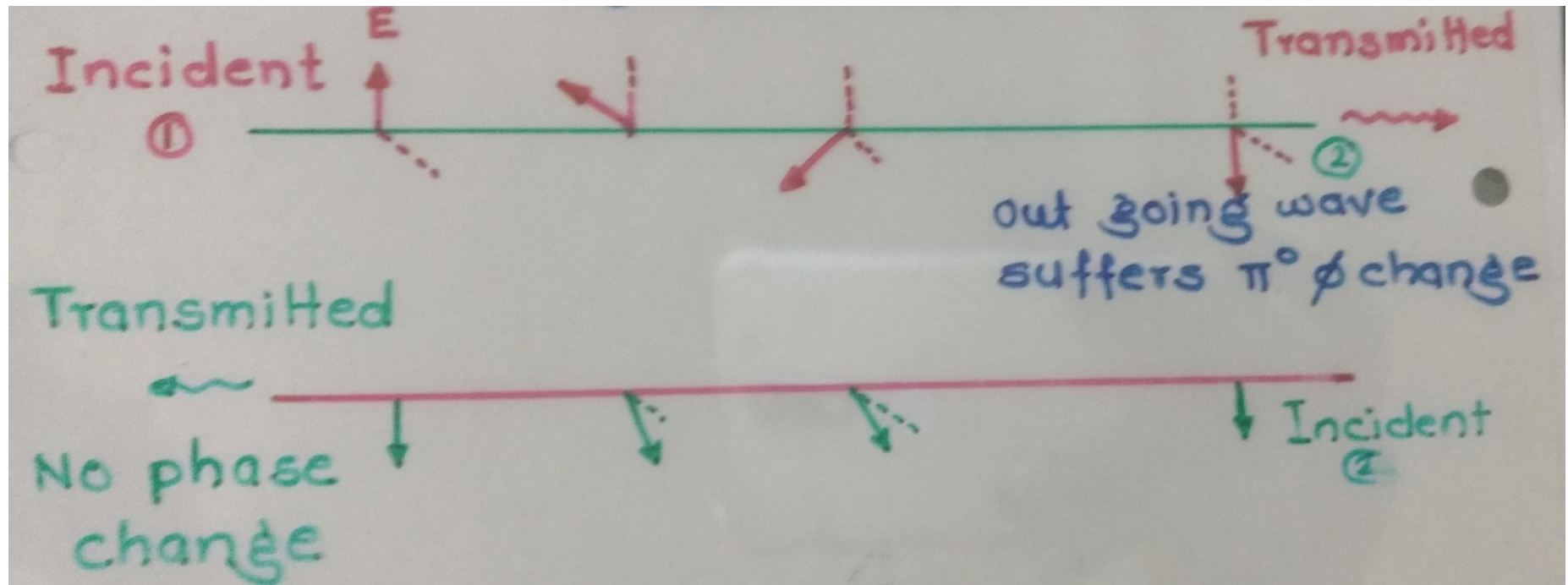
# Gyrator

Gyrator is a nonreciprocal ferrite device. It is a two port device that has a relative phase shift of  $180^\circ$  in the forward direction and 0 (zero) phase shift in reverse direction.

# 90 TWIST GYRATOR



# 90 TWIST GYRATOR



# 90 TWIST GYRATOR

- Rectangular guide → 90 Twist
- Both rectangular guides have same orientational ports.
- Central circular guide contain axially magnetized thin cylindrical ferrite rod – with tapered end.....to avoid reflections.

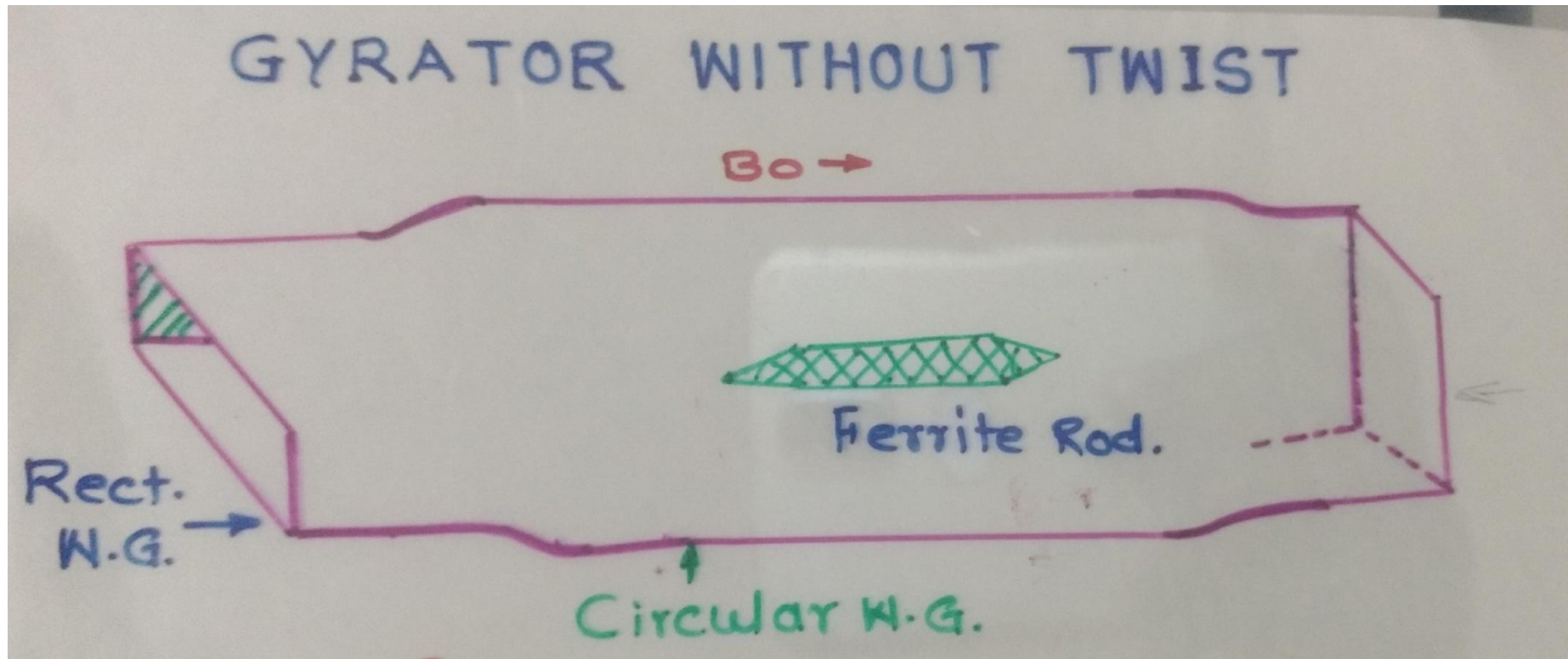
# LEFT TO RIGHT

- Twist waveguide - wave rotate Anti clockwise 90
- Ferrite rod - 90 rotation Anti clockwise
- Wave processing toward left to right is inverted i.e. shifted by 90

# RIGHT YO LEFT

- Faraday rotation 90 in same sense & cancel by rotation by twisted section which is 90 clockwise

# GYRATOR WITHOUT TWIST



# GYRATOR WITHOUT TWIST

