

- Square corner reflector using method of Images
- Calculate the directivity of 20 turns helical antenna with $\alpha = 12^\circ$ and circumference is one wave length.
- Advantages & Limitations of microstrip antennas.
- A parabolic dish provides a power gain of 50 dB at 10 GHz with 70% efficiency. Find diameter & Beam width.
- principle of helical antenna.
- A paraboloid reflector of 1.8 m diameter is used at 6 GHz .
Calculate FNBW.
- Explain Cassegrain feed mechanism of parabolic reflector
- parabolic reflector has radiation characteristic whose HFBW is 5°
and find out its FNBW and gain
- measurement of Radiation pattern & Setup of antenna measurement
- Calculate the minimum distance required to measure the field pattern of antenna of diameter 1.5 m at frequency 3 GHz .
- Design a rectangular microstrip antenna using a substrate with $\epsilon_r = 2.2$,
 $h = 0.1585\text{ cm}$, at $f = 10\text{ GHz}$.
- measurement of gain by direct comparison method

- phenomenon of sky wave propagation
 - wave tilt in ground wave propagation
 - space wave propagation
 - describe scattering phenomenon / Troposphere scattering
 - phenomenon of ground wave propagation.
 - short notes on roughness of the earth
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- application of helical antenna
- Z_0 depends on what parameter (microstrip feed line)
- zoning effect of lens antenna
- operation of parabolic antenna - short notes
- compare offset feed & front feed
- principle of lens antenna
- ~~calculate the~~ minimum