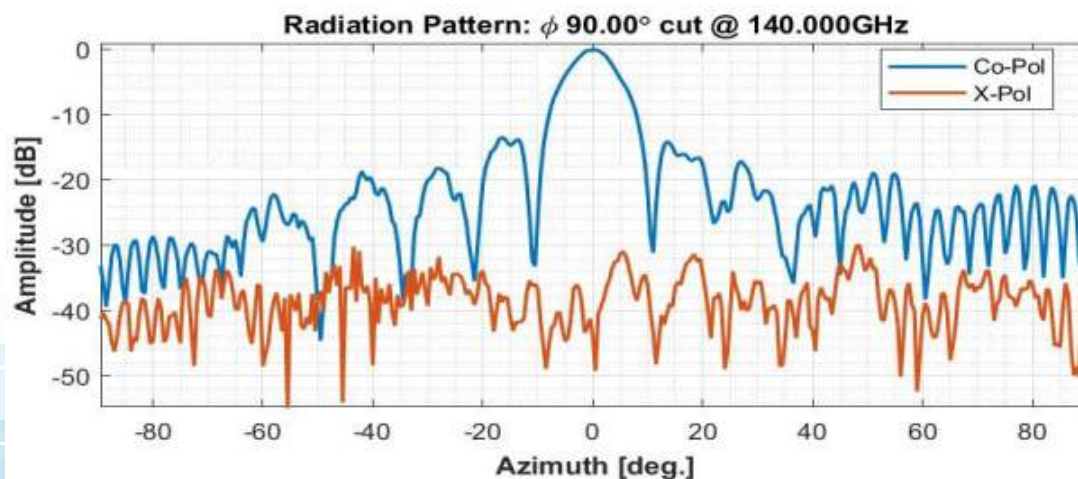
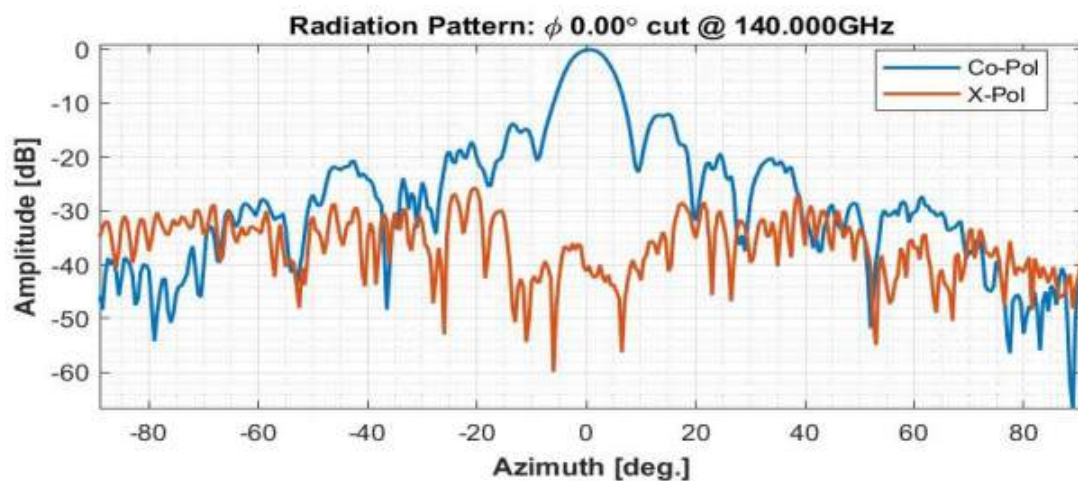




Fabricated Antenna at D-band

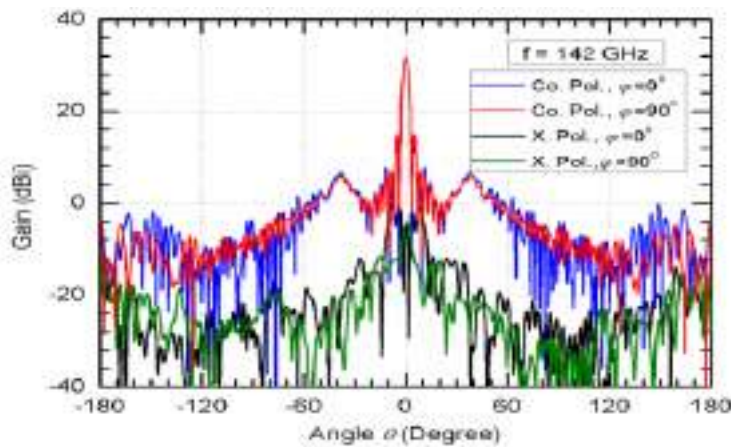


- Frequency = 135 -146 GHz
- Gain ~ 24 dBi
- Beamwidths ~ $9.7^\circ \times 8.2^\circ$
- Dish Diameter ~ 19 mm
- Height ~ 10 mm





Elliptic Lens Antenna at J-Band



Frequency = 220–330 GHz

Gain ~ 52dBi

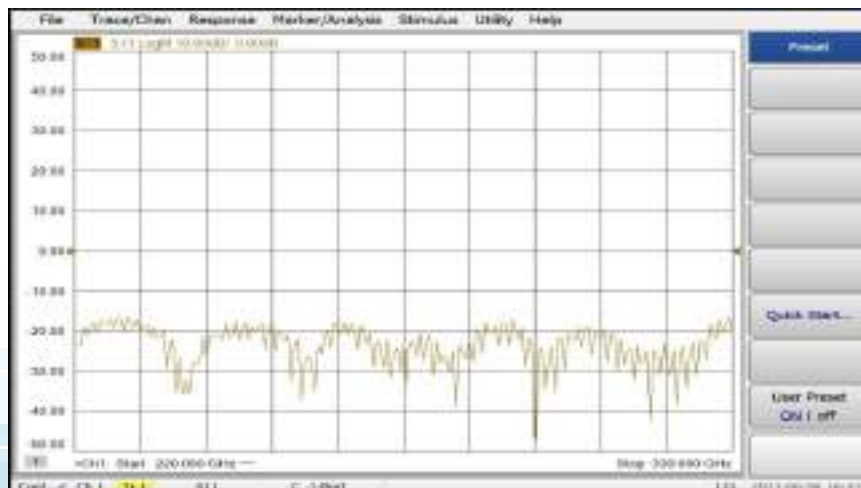
3dB beamwidths ~ $0.35^\circ \times 0.35^\circ$

Side-lobe levels ~ 20 dB

Lens diameter = 175 mm

Overall Antenna Dia. = 200 mm

Height = 220 mm





LOS Link – 142 GHz

- A Line-of-Sight (LOS) link was established at 142 GHz with antennas, transmitter, and receiver developed by SAMEER Kolkata Centre. 6.4 Gbps data transmission was demonstrated at IMC 2024.
- A LOS link was established at 142 GHz with antennas developed by SAMEER Kolkata Centre. 54 Gbps data transmission was demonstrated at IMC 2023 using transmitter, and receiver from Keysight.



Demonstrated at India Mobile Congress 2023



Experimental setup at SAMEER Kolkata Centre



LOS Link – 283 GHz

- A LOS link was then established and demonstrated in IMC 2024.
- Data rate 6.4 Gbps



Demonstrated at India
Mobile Congress 2024

