## DESIGN AND TESTING OF X-MODE REFLECTOMETRY SYSTEM FOR COUPLING STUDIES OF LOWER HYBRID WAVES IN ADITYA-U TOKAMAK J. KUMAR, P.K.SHARMA, K.K.AMBULKAR, Y.JAIN, C.G.VIRANI, K. MAHANT, A. V. PATEL

- X mode reflectometry system operating in the frequency range from 26 36 GHz is considered based on heterodyne detection.
- E plane sectorial horn antenna and vacuum window are designed in CST microwave studio.
- Microwave hardware like VCO, frequency doubler, power splitter, SSBM and LNA have been tested.
- A density inversion program has been developed and tested based on Bottolier-curtet algorithm.