

**Brief of Laser based comn system as modular payload for Small LEO satellites offering > 1.5 Gbps data transfer rate between LEO and GEO Data Relay Satl**

As a component of Challenge 2, it is proposed to develop a Laser based Optical Inter-Satellite Link payload for small satellites in LEO to communicate with other LEO satellites and GEO satellite as part of the TDRS system. The system with all its power electronics should be able to easily integrate into LEO satellites. The desired data rate for this system is greater than 1.5Gbps.