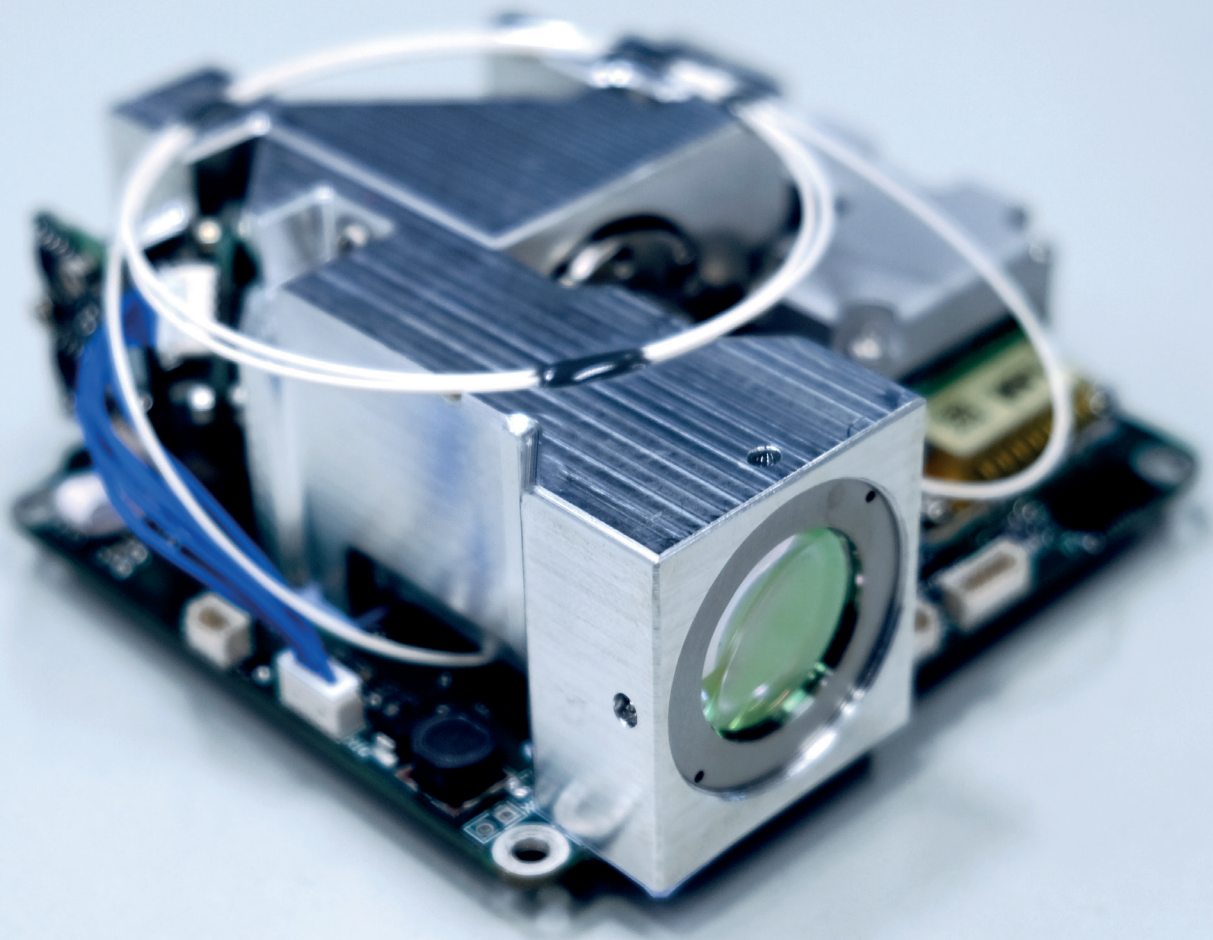


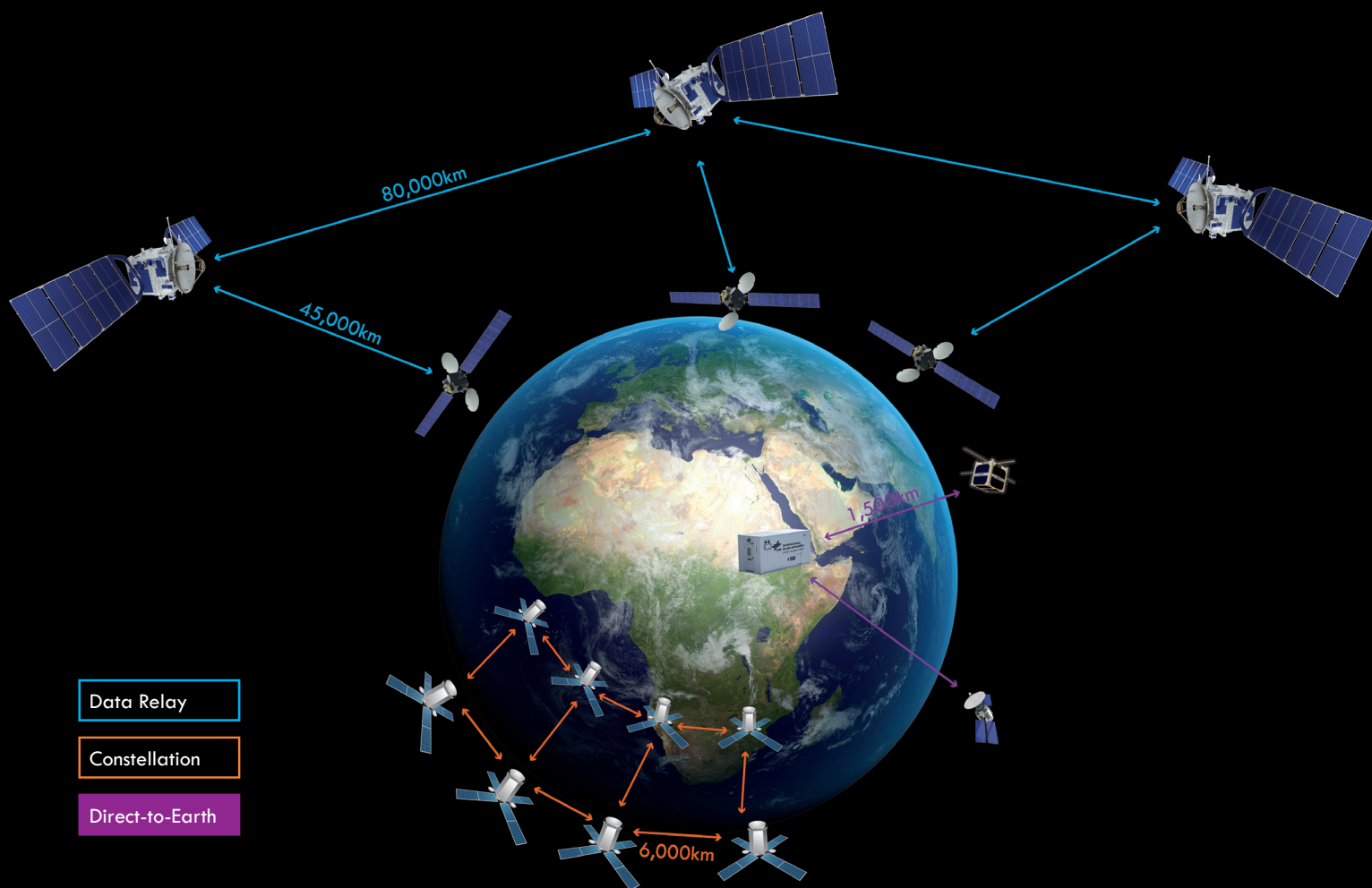
CubeLCT 100M

SMALLEST LASER COMMUNICATION TRANSMITTER WORLDWIDE



VERSION 2019-09

CubeLCT — LEO TO GROUND DATA TRANSMISSION WITH LOWEST SWAP



Application	CubeSat LEO to ground laser communication solution based on TESAT's longterm industrial experience and DLR Institute of Communications and Navigation's research knowledge.
Range	LEO to ground
Channel Data Rate	100 Mbps LEO to ground; 1 Mbps TC Channel ground to LEO
Mass	397 gr
Size	9 x 9.5 x 3.5 cm ³ (~ 0,3 U)
Power Consumption	10 W (Peak)
Field of Regard	+/- 1° integrated Fine Steering Mirror capability (requires S / C body pointing)
Lifetime	5 years in LEO orbit
Interface	LVDS (for data); UART (for TM / TC)
Available	1 st Mission PlxL in 2020, FM available
Roadmap	Expandable for 1 Gbps Downlink & 100Mbps Optical Intersatellite Links
Wavelength	Downlink 1550nm; Uplink 1590 / 1610 nm
Technical Features	Laser communication terminal for lowest size, weight and power consumption; optimized for 60cm aperture optical ground station with uplink & beacon; IM / DD technology; up to 15 minutes communication time per ground station pass; CCSDS O3K implementation.