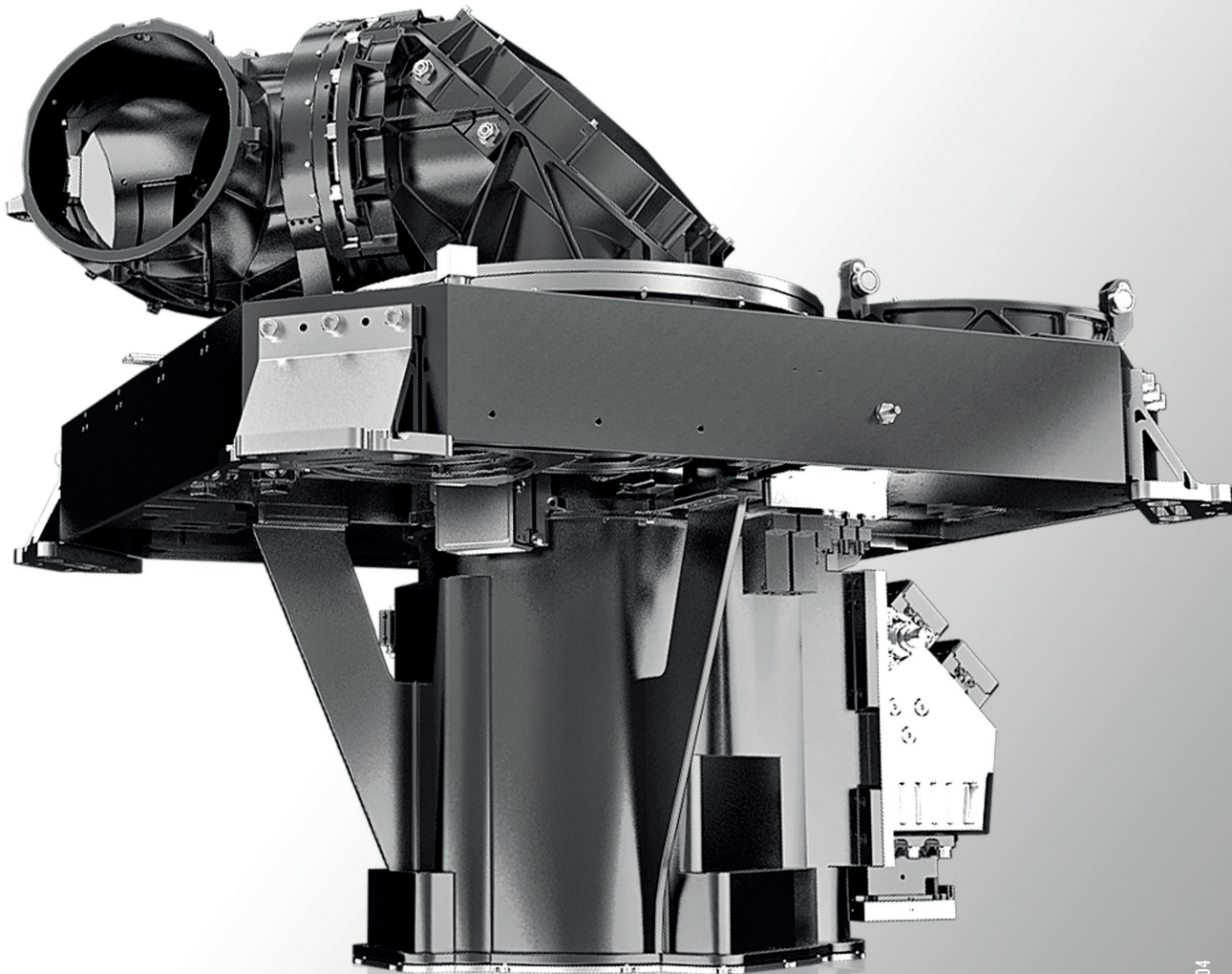


LCT 135

GEO SATELLITE LASER COMMUNICATION TERMINAL



VERSION 2019-04

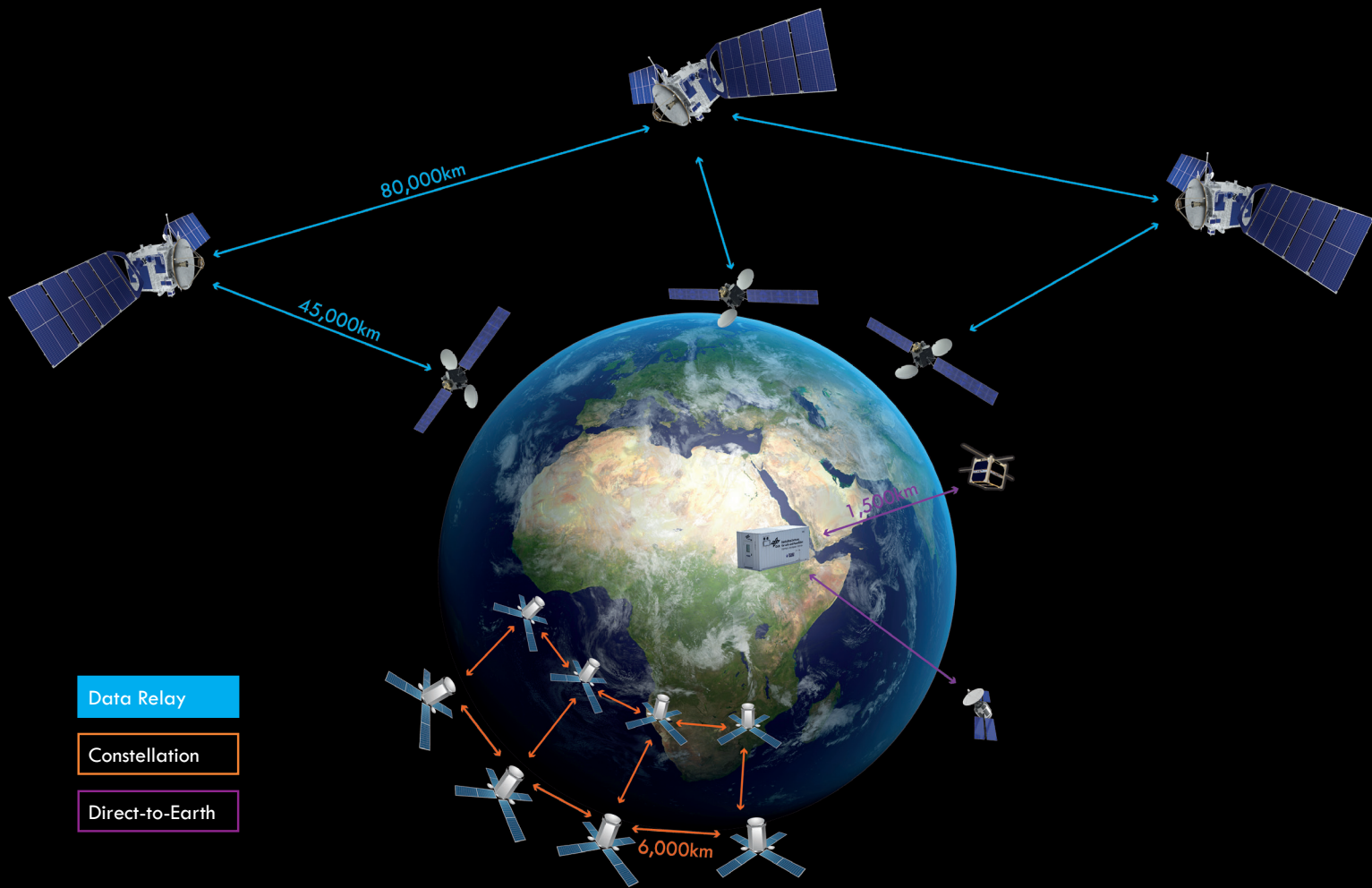


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LCT 135 – GIGABIT OPTICAL INTER-SATELLITE SERVICE OVER 80,000 KM



Application	Gigabit Inter-Satellite Link (ISL) for Data Relay on GEO S/C; core element of the operational service for the European Data Relay System (EDRS); 14 flight models delivered / in production
Range	up to 80,000km; GEO to GEO, GEO to LEO, GEO to Airborne, GEO to Ground
Data Rate	1.8 Gbps., bidirectional
Mass	53 kg
Size	60 x 60 x 70 cm ³
Power Consumption	max. 150 W in acquisition mode, 120 W in communication mode
Field of Regard	full hemispherical with Coarse Pointing Assembly (CPA)
Lifetime	15 years in GEO orbit
Data Interface	LVDS / Wizard Link
TRL	TRL9
Transmit Power	2.2 W
Technical Features	Tesat LCT in space with coherent, space qualified 1064 nm laser source, using Homodyne BPSK modulation; Most efficient design for long range, high data rate transmissions with resiliency to sunlight and jamming. Next generation features: 2 Mbps. forward channel (Tasking); 3.6 Gbps. data rate increase; Dual wavelength (1550 nm) for interoperability options