

SDA OCT

Available now

Transmitter and Receiver IP cores

ESTOL

Coming soon

Transmitter and Receiver IP cores

IngeniArs has developed transmitter and receiver IP cores compliant with **2.5G and 10G ESTOL and SDA OCT standards**. Modulation scheme implemented is **On-Off Keying** and receiver IP operates in **non-coherent mode**. For 2.5G link speed Low Density Parity Check (LDPC) coding is implemented whereas for 10G optical link Reed Solomon coding is supported. ESTOL 10G IP cores are designed as part of a European Space Agency (ESA) project, these IP cores enable flexible and efficient implementation of optical systems to be integrated into Optical Communication Terminals (OCT) for Space-to-Ground or Inter-Satellite Link air interfaces.

These versatile IP cores address the needs of modern and future space missions requiring high-data-rate making it an ideal solution for:

- Telecom satellite constellations;
- Earth observation satellites with optical direct-to-Earth (DTE) links.

These IP Cores have been **developed within the framework of ESA projects** and **in accordance with ECSS-E-ST-20-40C quality standard**.

KEY FEATURES

- **Compatible with SDA OCT standard v3.2.0 and v4.0.0**
- **2.5 Gbps data rate with Low Density Parity Check (LDPC) coding**
- **Compliant with ESTOL standard v3.1**
- **10 Gbps data rate with Reed Solomon coding**
- **On-Off Keying modulation**
- **Coded in technology-independent highly configurable VHDL**
- **Non-coherent receiver mode**