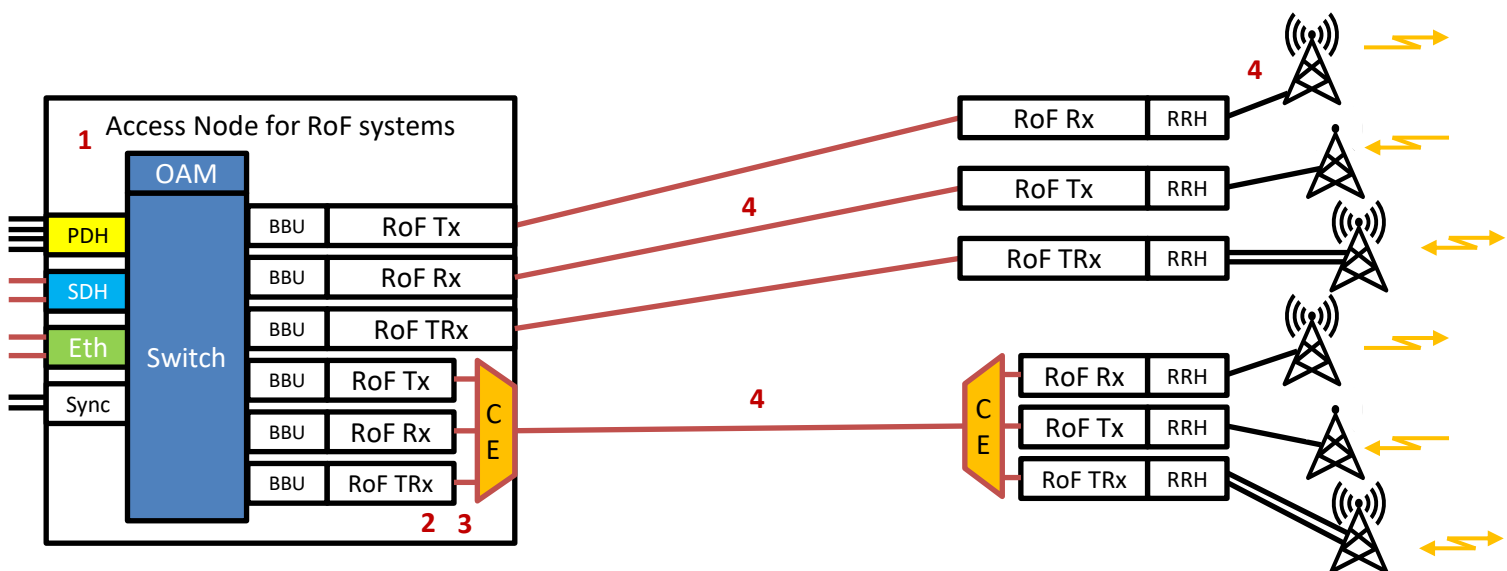


# G.9803 Radio over fibre systems

- Main purpose of radio-over-fibre (RoF) systems is to transmit waveform information over an optical fibre network for radiocommunication services, resulting in serving as a fronthaul link
- Various-service support – including international mobile telecommunication (IMT) systems, radar systems for foreign object debris detection, and other applications



### 1. ITU-T G.9803, Clauses 6 and 7 – RoF systems fundamental architecture and requirements

Clause 6 provides RoF systems architectures in the types of simplex, duplex and complex. Clause 7 specifies requirements on radio signal quality, latency, eye safety, and interoperability, and describes waveform information and signal processing in RoF system.

### 2. ITU-T G.9803, Annex A – Analog RoF system supporting IMT system over ODN

Specifies reference interfaces and points of using RoF system supporting IMT systems over ODN. Annex A provides reference configurations with point-to-point or point-to-multipoint links and defines service node interfaces (SNIs), user network interfaces (UNIs), physical layer requirements, as well as system OAM.

### 3. ITU-T G.9803, Annex B – RoF system supporting foreign object debris (FOD) detection system

Describes reference configuration of using the RoF system for FOD in a point-to-multipoint network architecture. Annex B provides typical examples on functional specifications and interface parameters.

### 4. ITU-T G.9803, appendices – RoF systems use cases, services, and frequency bands

The Appendices introduce typical use cases of wireless fronthaul, indoor distributed antenna system (DAS), and other applications. They summarize RoF systems frequency bands defined by IMT, ITU-R, IEEE, and candidate bands for applications of last-mile wireless connectivity, radiolocation, and railway radiocommunication.