VLVnT08



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Developments for a passive optical node network for deployment in deep sea enabling time synchronous data readout.

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Today 100 optical specified ITU channels can fit into 1 single fiber. Today a 10Gb/sec. data rate per optical channel is common practice. This enables a transparent network with point to point connections from seabed to shore. Accurate timing, jitterless signal propagation, is intrinsic to an all optical system. Additional advantages of this node based passive optical approach are a long system life time and low power consumption on the seabed. A minimal need of offshore components eases developments, realizations and tests of the offshore electronics. The onshore electronics and data system can be developed separate and in parallel to the offshore system. Future developments and subsystems can be connected transparently on an optical channel up to $10 \, \text{Gb/sec}$.

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