

Title (en)
THERMALLY SHIELDED MULTI-CHANNEL TRANSMITTER OPTICAL SUBASSEMBLY AND OPTICAL TRANSCEIVER MODULE INCLUDING SAME

Title (de)
OPTISCHE BAUGRUPPE FÜR EINEN WÄRMEABGESCHIRMTE MEHRKANALSENDER UND OPTISCHES SENDE-/EMPFANGSMODUL DAMIT

Title (fr)
SOUS-ENSEMBLE OPTIQUE D'ÉMETTEUR À CANAUX MULTIPLES THERMIQUEMENT ISOLÉ, ET MODULE ÉMETTEUR-RÉCEPTEUR OPTIQUE INCLUANT CE DERNIER

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Application
EP 14749420 A 20140204

Priority
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• US 2014014607 W 20140204

Abstract (en)
[origin: WO2014123866A1] A thermally shielded multi-channel transmitter optical subassembly (TOSA) may be used in a multi-channel optical transceiver. The multi-channel TOSA generally includes an array of lasers optically coupled to an arrayed waveguide grating (AWG) to combine multiple optical signals at different channel wavelengths. A plurality of laser array thermal shields are thermally coupled to a temperature control device, such as a thermoelectric cooler (TEC), and thermally shield the respective lasers in the laser array in separate thermally shielded compartments. Each of the lasers may also be individually thermally controlled to provide a desired wavelength, for example, using a heater and/or cooler located in each thermally shielded compartment. The optical transceiver may be used in a wavelength division multiplexed (WDM) optical system, for example, in an optical line terminal (OLT) in a WDM passive optical network (PON).

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