

ABSTRACT OF THE DISCLOSURELASER MONITORING AND CONTROL IN A TRANSMITTER OPTICAL
SUBASSEMBLY HAVING A CERAMIC FEEDTHROUGH HEADER
ASSEMBLY

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An improved monitoring and control system for a laser in a header assembly of a transmitter optical subassembly ("TOSA") is disclosed. The monitoring and control system, comprising one or more monitor photodiodes ("MPDs"), is positioned together with the laser on a component submount. The submount in turn is mated with a multi-layer platform ("MLP") that forms part of the header assembly. The MLP hermetically extends through the header assembly to provide a plurality of electrical interconnects for the laser, MPD(s), and other submount components. In one embodiment, a single MPD is located proximate the laser to receive back facet laser light emission. Measurement of the back facet emission enables the MPD to determine laser intensity. In another embodiment, two MPDs are joined together to receive the back facet laser light emission. Comparison of each MPD's measurement enables the laser's wavelength to be determined and adjusted to optimize its performance.

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[FIG. 1A]