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| **Title:** | Demonstration of Resonance Frequency Enhancement Effect by Using Split Pumping Region in Active Multi-mode Interferometer Laser Diode | | |
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| **Abstract:** |  |
| Laser diode capable of high speed direct modulation is one of the key solution for short distance applications. One promising approach to enhance the modulation speed is to increase the photon density to achieve high modulation bandwidth. The modulation bandwidth is an important issue and that needs much attention for short distance direct modulation application. So to achieve this target, the split pumping concept has been applied for the active multi-mode interferometer laser diode (active MMI LD) and significant enhancement of 3 dB bandwidth up to 8 GHz from 2.3 GHz due to the enhancement of resonance frequency has been successfully confirmed. | |