Abstracts

Characteristics of optically controlled oscillator using InP HEMT with novel structure

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This paper demonstrates the characteristics of the novel structure of photonic HEMT and the optical tuning characteristics of the MMIC oscillator using novel HEMT. The novel HEMT has an optical absorption layer to increase the photo-response. The fabricated oscillator consists of a InP HEMT and a CPW. The optical frequency shift of the InP MMIC oscillator using novel HEMT with 1.5 /spl mu/m optical source was 180 MHz around 37 GHz. It was found that enhancement of the optical tuning with the 1.5 /spl mu/m laser can be realized using a HEMT with novel structure.

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