Abstracts

Millimeter-wave sub-carrier optical modulation, photodetection and integration with antenna for optic fiber link system

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In this paper, we present experimental results on millimeter-wave sub-carrier optical modulation and photodetection. The millimeter-wave power detected by a photodetector using uni-traveling photodiode (UTC-PD) is 8.50 dBm at 38 GHz and 1.34 dBm at 60 GHz, respectively, which is dose to the required power for direct fed of the indoor millimeter-wave radiation system. CPW-folded antennas on a glass substrate integrated with the photodetector at 38 GHz and 60 GHz are designed and simulated. The simulation results for the antennas are also presented.

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