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标题: Experimental realization of wireless transmission based on terahertz quantumcascade laser
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摘要: A terahertz wireless transmission system is constructed by using a continuous wave terahertz quantum-cascade laser (THz QCL) and a spectrally-matched terahertz quantum-well photodetector (THz QWP). The transmission bandwidth of the system is measured. The transmission processes at 4.13 THz of a picture file are demonstrated by employing the above system, and the both message totally consistent with the original one are received correctly. Hence, the feasibility of wireless transmission based on THz QCL and THz QWP devices is confirmed. Finally, we analyze the transmission rate of the demonstrating system and give the improving methods.
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