

**Phase Locked Loop Design for Transmitting and Receiving
Sections in Optical Wireless Access**

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Abstract

The design of transmitting and receiving parts of optical wireless LAN system by using phase locked loop circuit is presented. With the optical wireless access, single beam communication is required. The Hub-beam direction control signal should be transmitted simultaneously with the data signal. Phase locked loop circuit is utilized to demonstrated as frequency synthesizer for transmitting section and as clock recovery in receiving section. The circuits of both parts are implemented on the circuit board.