

“38 GHz signal optical fiber transmission using guided-wave electro-optic single-sideband modulators with polarization reversals”, pp112-115

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Abstract – 38GHz optical single-sideband (SSB) modulation by using a new guided-wave electro-optic SSB modulator with polarization reversals was experimentally demonstrated and its applications to radio-on-fiber (ROF) systems are reported. The power penalty of the transmitted 38 GHz signal caused by fiber chromatic dispersion was drastically reduced by using the fabricated SSB modulator. The proposed device should lead to a useful millimeter-wave signal converter in ROF systems.