without affecting the phase modulating performance. Moreover, it is noted that the phase modulated optical carrier and the first-order sideband are selected by the OBPF in our experiments. The beating between the optical carrier and the first-order sideband generates the fundamental microwave signal. If a Wave Shaper is used instead of the OBPF to select the phase modulated optical carrier and the higher-order sideband, phase modulated microwave signal with frequency multiplying can be generated. Since an optical filter is involved in our approach, the proposed configuration is not transparent to the optical carrier wavelength. For optical carrier at other wavelength, the center frequency of the optical filter has to be tuned.

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