Abstracts

V-Band and W-Band Broad-Band, Monolithic Distributed Frequency Multipliers (Jun. 1992 [MGWL])

E. Carman, M. Case, M. Kamegawa, R. Yu, K. Giboney and M.J.W. Rodwell. "V-Band and W-Band Broad-Band, Monolithic Distributed Frequency Multipliers (Jun. 1992 [MGWL])." 1992 Microwave and Guided Wave Letters 2.6 (Jun. 1992 [MGWL]): 253-254.

Broad-band V-Band and W-Band frequency multiplication is reported using soliton propagation cm a GaAs monolithic device. With 24-dBm input, a doubler attained 17.4-dBm peak output power with at least 52-63.1-GHz, 3-dB bandwidth, and a tripler attained 12.8.dBm peak output power with at least 81--108.8-GHz, 3-dB bandwidth. These multipliers, fabricated with 3-µm design rules on GaAs and driven by lower frequency amplifiers, have applications as cost-effective sources in mm-wave systems.

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