

Abstracts

Bunching an Electron Beam by Deflection Modulation

J.R. Baird and P.D. Coleman. "Bunching an Electron Beam by Deflection Modulation." 1963 Transactions on Microwave Theory and Techniques 11.5 (Sep. 1963 [T-MTT]): 312-317.

The coherence properties of a deflection modulated electron beam are studied for harmonic generation of electromagnetic energy in the low millimeter and possibly submillimeter wavelength region of the spectrum. A fourth-harmonic, beam-coupling experiment, at 36 Gc using a Fabry-Perot type coupler, is described. Based on these results, a proposal is presented for a beam-coupling circuit whose transverse dimensions can be made physically large compared to the free-space wavelength.

 [Return to main document.](#)