

Abstracts

New Compact Broadband High-Efficiency Mode Converters for High Power Microwave Tubes with TE/_{0n}/ or TM/_{0n}/ Mode Outputs

M.J. Buckley, G.H. Luo and R.J. Vernon. "New Compact Broadband High-Efficiency Mode Converters for High Power Microwave Tubes with TE/_{0n}/ or TM/_{0n}/ Mode Outputs." 1988 MTT-S International Microwave Symposium Digest 88.2 (1988 Vol. II [MWSYM]): 797-800.

New shorter, broader bandwidth designs are discussed for TE/₀₃-TE/₀₂/ and TE/₀₂-TE/₀₁/ varying-radius mode converters and TE/₀₁-TE/₁₁/ serpentine mode converters for a 2.779 cm diameter circular waveguide for 60 and 140 GHz gyrotrons. Designs combining TE/_{0n}-TE/_{0n-1}/ converters with a 6.35-2.779 cm diameter taper are presented. A TM/₀₁-TE/₁₁/ serpentine mode converter design for a frequency of 8.6 GHz in a 4.76 cm circular waveguide is also discussed. Measured results are presented.

 [Return to main document.](#)