

Abstracts

Octave Input, S-TO K_{sub a}-Band Large-Signal Upper-Sideband Varactor Upconverter

H.C. Okean and L.J. Steffek. "Octave Input, S-TO K_{sub a}-Band Large-Signal Upper-Sideband Varactor Upconverter." 1974 S-MTT International Microwave Symposium Digest of Technical Papers 74.1 (1974 [MWSYM]): 218-220.

The S-to K_{sub a}-band varactor upconverter described herein provides significantly greater power output/bandwidth capability than obtainable from a single-sideband resistive modulator, leading to significant potential simplification in high-modulation-rate millimeter wave transmitters. This upconverter uses high quality varactors and a unique design to provide octave (2-4 GHz) instantaneous input bandwidth, and a flat (6-9 mW), 2 GHz-wide K_{sub a}-band output power-frequency response with minimum K_{sub a}-band pump power expenditure.

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