

# Abstracts

## A Ka-band perpendicular-fed patch array for spatial power combining

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S. Ortiz, A. Al-Zayed and A. Mortazawi. "A Ka-band perpendicular-fed patch array for spatial power combining." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 1519-1522 vol.3.

A Ka-band spatial power combining amplifier array employing a perpendicular feed structure is presented. The amplifier array utilizes perpendicularly-fed, aperture-coupled microstrip patch antennas with a unique feed structure for both the input and output antennas. This feed places the devices and antennas on separate planes, allowing for a smaller unit cell size, a simplified layout, and a minimum interaction between the devices and fields. A 7/spl times/7 passive and active amplifier array have been designed and fabricated at Ka-band. Experimental measurement results for both arrays are given.

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