

# Abstracts

## Miniature Strip-Line to Waveguide Slot Adapter--Co-Linear (Correspondence)

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O. Shahan. "Miniature Strip-Line to Waveguide Slot Adapter--Co-Linear (Correspondence)." *1962 Transactions on Microwave Theory and Techniques* 10.2 (Mar. 1962 [T-MTT]): 142-143.

An inline adapter from miniature air dielectric strip transmission line with ground plane spacing of 0.130 in to half height X-band waveguide has been developed by the Microwave Design Group at Hycon Manufacturing Company, Monrovia, Calif. The upper wall of the waveguide was used as the lower ground plane for the stripline. Unity coupling was accomplished through a transverse slot in the common wall. The slot was 0.066-in wide by 0.750-in long surrounded by a metal cavity 0.250 in by 1.000 in built into the ground planes. (See Fig. 1.) The slot junction was matched by use of tunable shorts both in the stripline and the waveguide. The output of the 50-ohm stripline was terminated by a built-in strip-line load whose VSWR was 1.04.

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