

Title (en)
TRANSITION FROM A HOLLOW WAVE GUIDE TO A STRIP LINE

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EP 0094478 B1 19870715 (DE)

Application
EP 83101584 A 19830219

Priority
DE 3217945 A 19820513

Abstract (en)
[origin: US4550296A] A waveguide-microstrip transition arrangement including, a waveguide section and a microstrip portion, for coupling waveguide modes between the waveguide section and the microstrip portion. The waveguide section has waveguide walls defining waveguide wall surfaces including a short-circuited end wall surface and side wall surfaces. A channel passes through one of the side walls and presents an opening at the associated wall surface. The microstrip portion includes a substrate having opposite sides with a ground plane disposed on one side of the substrate and a microstrip conductor disposed on the other side of the substrate. The substrate passes through the waveguide section, entering the waveguide section at a location where the wall currents of the waveguide section flowing transversely to the substrate are at a minimum. A portion of the microstrip conductor is disposed on the substrate to pass through the channel into the waveguide section free of contact with the waveguide walls. The substrate has no ground plane in the regions of the interior of the waveguide section and of the plane of separation of the waveguide wall where the substrate is disposed. The ground plane extends into and terminates within the channel.

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