

## Theoretical Analysis of Twin Slab Phase Shifters in Rectangular Waveguide (1965 [MWSYM])

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One of the more promising device configurations for digital ferrite phase shifters is that of a rectangular waveguide containing circumferentially magnetized ferrite toroids of suitable length. Such a structure is shown in Figure 1. A very similar structure, which is more readily amenable to theoretical analysis is shown in Figure 2. Here the ferrite toroid has been replaced by two oppositely magnetized slabs which extend over the complete height of the waveguide. The propagation of electromagnetic waves through waveguides of the type shown in Figure 2 has previously been analyzed by Lax et al, and by Von Aulock.

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