

# Abstracts

## 360-degree linear analog phase shifter design using tunable short-circuit terminated combline filters

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*Sanghoon Shin, R.V. Snyder and E. Niver. "360-degree linear analog phase shifter design using tunable short-circuit terminated combline filters." 2001 MTT-S International Microwave Symposium Digest 01.1 (2001 Vol. 1 [MWSYM]): 303-306 vol. 1.*

A new design technique is introduced for designing a 360-degree linear analog phase shifter at 5.2 GHz. Using tunable short-circuit terminated combline (STCL) filters as reactive loads, the circuit gives a very small insertion loss (less than 1.5 dB) and an almost linear phase shift over the filter bandwidth for the full 360-degree range.

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