

## Temperature Stability for Microstrip Delay Lines on High Permittivity Substrates

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A constant time delay over temperature for miniaturized microstrip delay lines on high permittivity substrates is of great importance for many applications, particularly for space systems. A simple design formula helpful for the selection of a highly temperature stable substrate is presented. Moreover, a 274 ps delay line on CB substrate with a 0.40 % variation in time delay over the temperature range of -52°C to +50°C has been developed.

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