Abstracts

Active Broadband Impedance Transformations Using Distributed Techniques

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A circuit concept is derived which allows impedance transformations to be performed over extremely broad bandwidths. The transformation is obtained by coupling two or more identical distributed amplifier circuits in parallel by the use of a common input or output line. The circuit technique can be used where broadband impedance matching is important such as laser diode drivers or antenna matching in broadband receivers and transmitters. The circuit technique is demonstrated for a 1:2 impedance transformation over a 2 to 20GHz bandwidth by results presented for a fabricated amplifier.

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