

OFFSET TRANSMISSION LINE COUPLER FOR RADIO FREQUENCY SIGNAL AMPLIFIERS

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Abstract of the Disclosure

An offset transmission line coupler (115) for a transmitter output signal (123) generated by an RF signal amplifier (103) includes a through-path transmission line (201) and a coupled-path transmission line (202) electromagnetically coupled thereto by multiple serpentine-like portions (such as portions 641, 642, 643 and 644 in FIG. 6), which are disposed on opposite sides of the through-path transmission line (201) for enhancing coupling sensitivity and eliminating degradation in the amount of coupling due to variations in the transmission line plating registration. Offset portions (641, 643) on one side of the through-path transmission line (201) provide substantially the same amount of coupling as the offset portions (642, 643) on the other side of the through-path transmission line (201). The offset portions (641, 642, 643, 644) are offset substantially the same distance from the through-path transmission line (201), and the total length of the offset portions (641, 644) on one side are equal to the total length of the offset portions (642, 643) on the other side of the through-path transmission line (201).