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Correa et al.

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(54) **COMBINER FOR AN RF POWER AMPLIFIER**

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(58) **Field of Classification Search**
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See application file for complete search history.

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 177 days.

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(57) **ABSTRACT**

Embodiments of the invention include a combiner for an RF amplifier comprising wiring and a transmission line transformer. The transmission line transformer may include a ferrite core having a hole defined therein; a coaxial cable having a first dielectric constant and routed through the hole of the ferrite core; and a stripline having a second dielectric constant and routed around the ferrite core. In some embodiments, an electrical length of the stripline is matched to an electrical length of the coaxial cable. The electrical length of the coaxial cable may be defined by the first dielectric constant and the electrical length of the stripline may be defined by the second dielectric constant.

(52) **U.S. Cl.**

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16 Claims, 13 Drawing Sheets

