

# Design, development, and analysis of 1 to 4, anti-phase in-line RF power splitter for low-frequency ISM band applications

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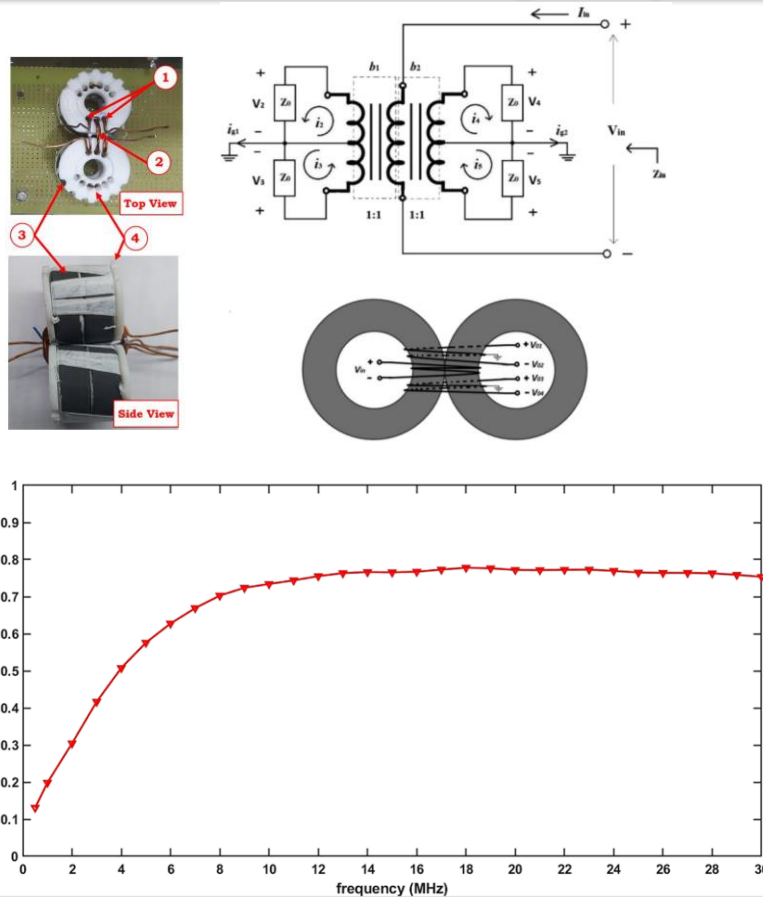


Figure: Prototype of the power splitter and the plot of coupling factor as a function of frequency is shown

The work describes a novel RF power splitter, which provides four outputs having phase shifts between 0 degrees and 180 degrees. The designed system has several advantages over the existing conventional RF power splitters that are used in the ISM (Industrial Scientific and medical) frequency bands having lower insertion loss than the conventional balun-based power splitter, even though having a higher splitting ratio. It has higher isolation than the resistive divider and higher operational bandwidth than the Wilkinson power divider.