

Compact UHF Power Divider with Decoupling Between the Inputs

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Abstract. The paper deals with a new compact UHF power divider with decoupling between inputs, the amount of which may be chosen from 1 to 4, and a number of outputs can vary from 2 to 4. The input signal is fed to the one of the inputs and divided into equal parts between the outputs. Transmission factor from one of the inputs to any output independent of the number of the outputs does not exceed 6,8 dB. The power divider is implemented on four Lange bridges, which in the plane are formed the square. The construction of the model and experimental results are presented in the C-band. The power divider is successfully used in UHF units of the cross reservation for the onboard equipment of a command and measurement system.

Keywords: UHF power divider, directional coupler, Lange bridge, coupled lines