Applying Frequency Transformations for Designing Two Passbands of Highly Different Bandwidths

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ABSTRACT

As modern communication systems use a complex arrangement of frequency allocation and spatial converages, multiple-passband response filters are required. The signal process both receive and transfer at base station are complex and difficult than before. If we use microwave filter to instead circulator chain structures, power divider configuration, power combiner configuration or mainfolds can make the system simple. Using multiple passband filter can reduce the design difficulity, lower system cost and equipment maintenance expenditure. Using matlab to simulation the transfer function and plot S11/S21 response then use EM software to verify the lamp circuit will speed up the design flow, experiment and tuning time cost.

Keywords : Dual passband filter、Microwave filter、Frequency transfer function、Frequency transformation

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