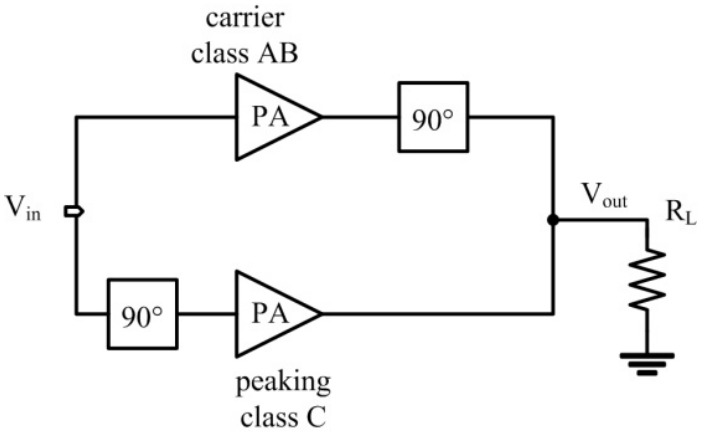
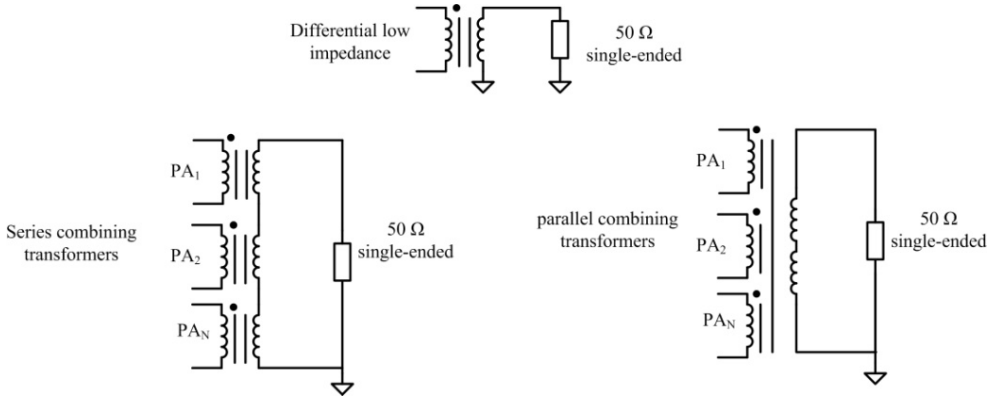
Master Thesis topics
Modelling of Doherty PA
LTN design for high power PA

Modelling of Doherty PA



Large signal models are important for optimum design of power amplifier (PA). In Doherty PA in particular, the effect of the output impedance of the peaking amplifier is a of a great impact at back-off power levels. The task is to develop a Verilog-AMS or VHDL-AMS model for the Doherty PA system which takes into account the output impedance and its variation with power level.

Load transformation network (LTN) for high output power PAs



It is required to transfer the 50Ω load impedance into a smaller value in the order of a 5-10Ω. The LTN can either utilise transformers (parallel or series combining) or lumped element components. The efficiency of the LTN is crucial as it directly affects the effeciency of the PA.

Further information on this and other topics could be delivered by email, telephone or discussion.

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