

# Abstracts

## Experimental investigation on efficiency and linearity of microwave Doherty amplifier

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Youngoo Yang, Jaehyok Yi, Young Yun Woo and Bumman Kim. "Experimental investigation on efficiency and linearity of microwave Doherty amplifier." 2001 MTT-S International Microwave Symposium Digest 01.2 (2001 Vol. II [MWSYM]): 1367-1370 vol.2.

We have investigated the microwave Doherty amplifier, testing for efficiency and linearity. For the experiment, a 1.4 GHz Doherty amplifier has been implemented using a silicon LDMOSFET. The Doherty amplifier-I (a combination of a class B carrier amplifier and a class C peaking amplifier) and the Doherty amplifier-II (a combination of a class AB carrier amplifier and a class C peaking amplifier) have been compared with class B and AB amplifiers, respectively, using single-tone, two-tone, and forward-link CDMA signals. It demonstrated the superior performance of Doherty amplifiers. The results provide a topology selection guide of the CDMA base station power amplifier to achieve both linearity and efficiency enhancements.

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