

Feedback Mechanism for High Power RF Power Amplifiers

Tech ID: 22676 / UC Case 2012-063-0

BACKGROUND

TECHNOLOGY DESCRIPTION

Presented here is a new type of microwave power amplifier that can get higher output power and efficiency than state-of-the-art microwave power amplifiers implemented in monolithic silicon processes. This invention takes advantage of a feedback network to optimize the power handling of a transistor. Feedback is normally avoided in power amplifiers because it limits the gain and hurts the amplifier efficiency. In this invention, the feedback is shown to keep the transistor delivering the peak power over a broader range of input power levels. Consequently, higher efficiency is also reached.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,160,286	10/13/2015	2012-063

OTHER INFORMATION

[A Nested Reactive Feedback Power Amplifier for Q-band Operation](#)

CONTACT

University of California, San Diego
Office of Innovation and Commercialization
innovation@ucsd.edu
tel: 858.534.5815.



OTHER INFORMATION

CATEGORIZED AS

- **Communications**
- Wireless

RELATED CASES

2012-063-0