

Empower RF Systems, Inc. Press Materials Distribution: Unlimited Author Date: July 14, 2014

## FOR IMMEDIATE RELEASE

## Empower RF Systems is proud to announce the approval of a patent on "Broadband linearization module and method"

New communication services and the use of complex waveforms have created a demand for highly linearized power amplifiers. Deviations from linearity show up as spectral distortions and/or modulation quality degradation (EVM) in the output of these amplifiers—that is, undesired energy, not contained in the original signal, inside or outside the frequency band of interest. Linearization techniques seek to reduce these distortions, allowing an amplifier to operate at its best spectral and power efficiency for the specific application.



This patent relates to a real time pre-distortion design and technique that is essential for broadband frequency hopping, which is especially critical for military radio communication. The main advantage of the new linearization approach is that pre-correction is being synchronized with the amplifier's distortion components in frequency, time and temperature. Please see the link below for more details:

## http://www.google.com/patents/US8736365

The patent was submitted and authored for Empower by Paulo Correa and Andre A. Castro. In the approved abstract released by the U.S. Patent & Trademark Office the patent is described as "A system including a power amplifier and a pre-distortion module coupled to the power amplifier. The pre-distortion module includes one or more smaller versions of the power amplifier to generate a pre-distortion signal that compensates for any memory-effect or inertia present in the power amplifier with application on frequency hopping and larger (up to 1 octave) instantaneous bandwidth communication systems.

Empower RF Systems is a leader in power amplifier solutions targeted at four key markets - electronic attack, communications, radar, and test & measurement. Our products incorporate the latest semiconductor and power combining technologies and originate from an extensive library of "building block" designs. Solutions range from basic PA modules to multifunction PA assemblies with embedded, microprocessor controllers.

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