

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# Advanced Doherty Alignment Module: MMDS20254H

May 2013



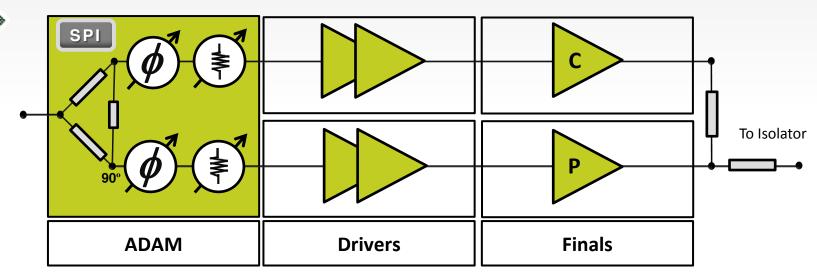


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freescale.com/ADAM

## NP (3)

### Why Doherty Alignment?



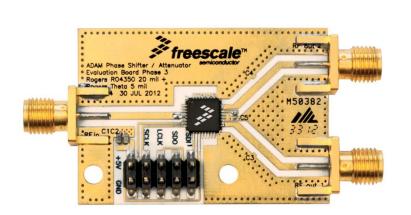
- The signals amplified by the carrier and peaking sub-amplifiers must be aligned in amplitude and phase for maximum Doherty performance
- Independent variation in the sub-amplifiers, present in particular in asymmetric Doherty PAs, leads to amplitude and phase imbalance, which results in:
  - Degraded DPD performance
  - Reduced efficiency
  - Low PA production yield
- Phase and amplitude control of the incident signals enables significant performance improvement of the entire PA production population

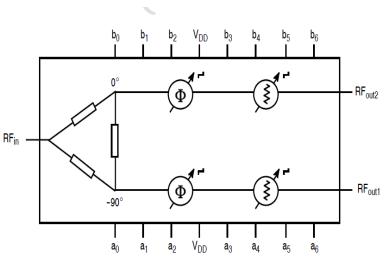




#### **ADAM Features**

- Manufactured in cost-effective industry standard QFN 32-pin 6 mm surface mount plastic package
- Built in SPI digital control of amplitude and phase
- Excellent amplitude and phase performance over temperature
- Digital adjustment precision and excellent repeatability









### **ADAM Advantages**



- Doherty PA yield improvement and performance optimization
- Improved DPD correction
- PA design with smaller production margins; smaller transistors can be used and hence system efficiency is increased
- Enables consistent asymmetric Doherty PAs
- Enables Doherty bandwidth improvement
- Real-time field adjustment possible to optimize PA performance under different conditions (power backoff, supply voltage, temperature, etc.)
- Provides adjustment precision and repeatability



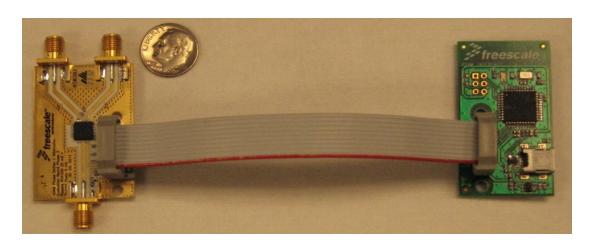


#### **ADAM Evaluation Kit**



# ADAM Evaluation Kit includes:

- EVB, controller, ribbon & USB cables
- Quick Start Guide with link for downloadable software



Kit available July 2013





