



polyfet rf devices

An Introduction

Summary

- ◆ History
- ◆ Financials
- ◆ Market
- ◆ Polyfet Technology
- ◆ Modular Concept
- ◆ Manufacturing
- ◆ New Technology LDMOS vs VDMOS

History

- ◆ 1976 Polycore Electronics - a Si. Foundry
- ◆ 1985 formed Polycore RF Devices
- ◆ 1988 Polyfet RF Devices
- ◆ California Corporation - Privately Owned
- ◆ Profitable every year since 1988
- ◆ 8 times revenue increase since 1988
- ◆ 1995 - Fast 50 High Tech Co. in So. Cal.



Financials

- ◆ Polyfet has no long term debt
- ◆ Wholly owned equipment
- ◆ Strong cash position
- ◆ Profitable

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MARKET

- ◆ 50% Commercial 50% Military
- ◆ 50% Domestic 50% Overseas
- ◆ Not in PCS 2 Ghz Market
- ◆ Strong concentration in Military
- ◆ Broadband High Power Amps
- ◆ High gain Ldmos drivers

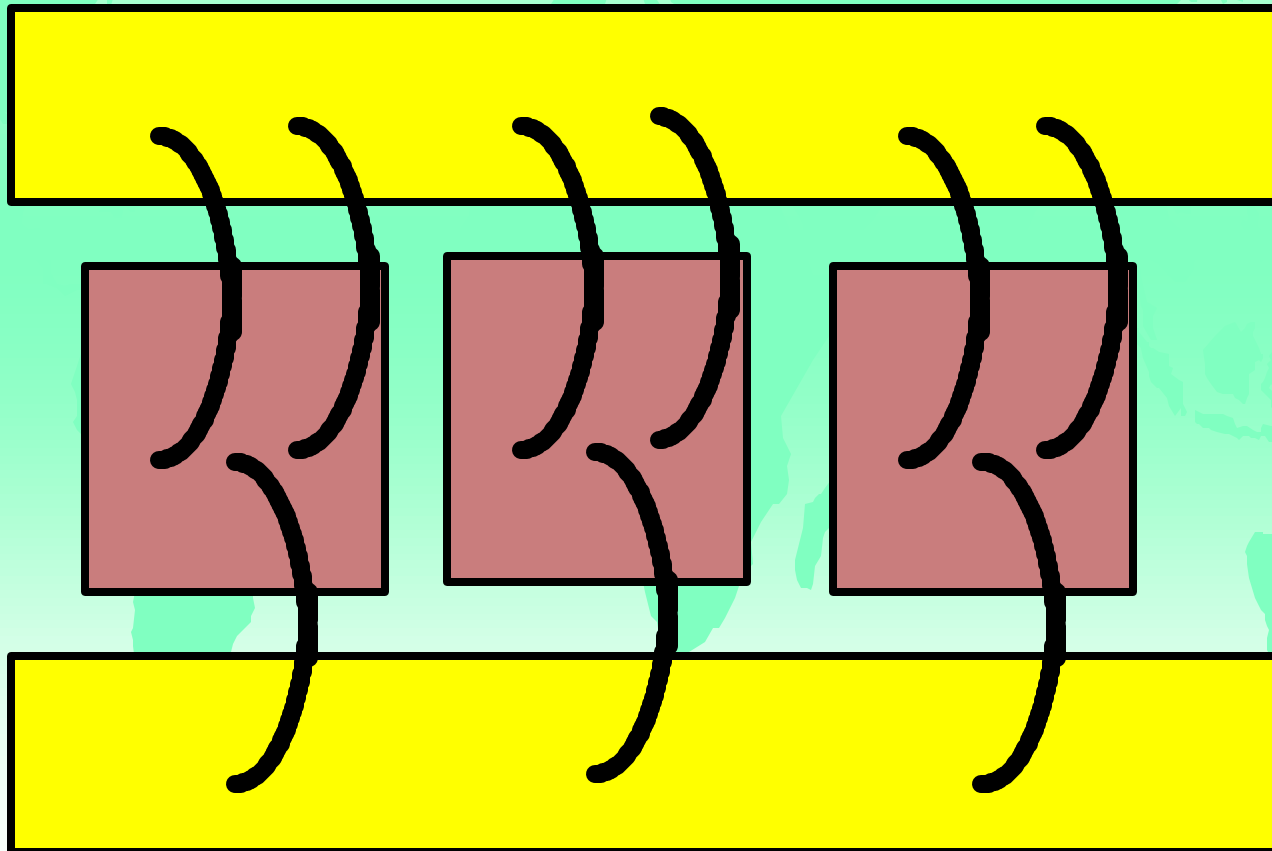
Technology Highlights

- ◆ Patented Gold metalized VDMOS process
- ◆ 1986 - 1st with 1 Ghz product introduction
- ◆ Power out up to 300W
- ◆ 28V, 12.5V, 50V line
- ◆ Modular Die concept.
- ◆ 1996 - LDMOS technology
- ◆ 1997 - 2nd Generation VDMOS

Modular Die Concept

- ◆ S1 Die - 25W/die
- ◆ S2 Die - 2.5W/die
- ◆ 12.5V and 28V same mask set
- ◆ Parallel Die for higher power
- ◆ Push pull and Single ended

Modular Concept



Manufacturing



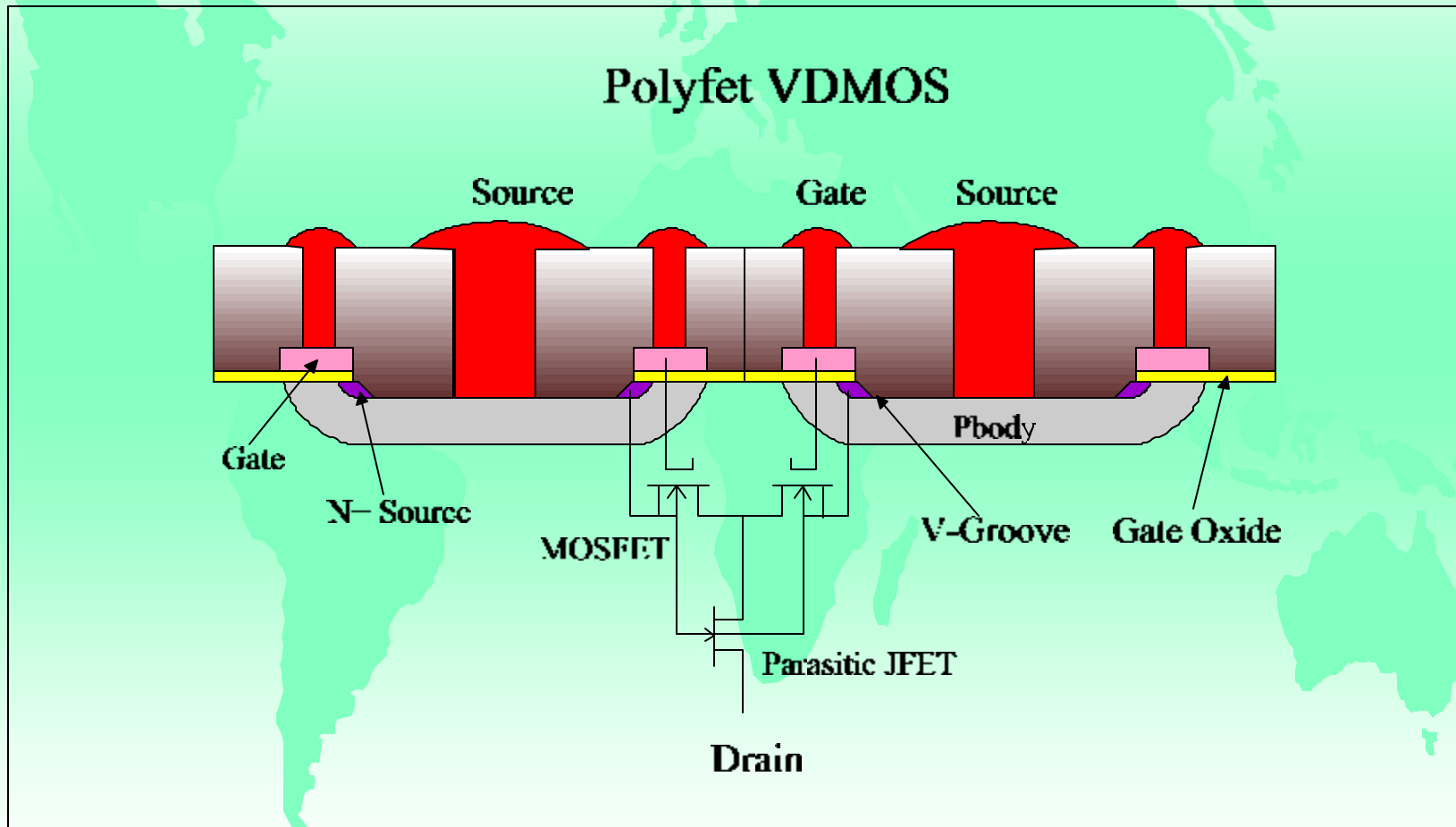
- ◆ 2 active Si. Foundries. Total 6 proven.
- ◆ Foundries process to our specifications
- ◆ Assembly done in house. Capacity 10K/mo.
- ◆ Quality System to MIL I 45208A - approved by Rockwell Collins.
- ◆ 2-4 wks turnaround.

VDMOS vs LDMOS

- Vertical DMOS
- Bottom Side Drain
- Source bond wire reducing gain
- Higher Crss
- BEO isolation
- High Package Cost

- + Lateral DMOS
- + Bottom Side Source
- + No source bondwire
- + 3 dB higher gain
- + Lower Crss
- + Higher Power
- + Higher Efficiency
- + Lower Package Cost
- + No BEO required

VDMOS



LDMOS

