ADVANCE INFORMATION

All information in this data sheet is preliminary and subject to change. 8/97

Low-Noise Bias Supply for GaAsFET PA with Power-OK in µMAX

General Description

The MAX881R low-noise, inverting power supply is designed for biasing GaAsFET power amplifiers in portable wireless applications. This device is a charge-pump inverter followed by a negative linear regulator. The input voltage range is 2.5V to 5.5V. The output can be set, using two resistors, to any voltage from -0.5V to -VIN. It can deliver up to 4mA. The internal linear regulator also filters the output to 1mVp-p ripple and noise.

Other features include a power-OK (POK) output that signals when the negative voltage is within 10% of its set point. It protects the GaAsFET by not allowing power to be applied to the GaAsFET's drain until it is properly biased. The signal can be routed either to a microcontroller or directly to a switch at the GaAsFET drain.

Cell Phones PCS Phones PHS Phones Wireless Handsets

Wireless Modems Two-Way Pagers Mobile Radios Wireless Computers

Applications

_Features

1mVp-p Low-Noise Output Voltage Ripple

MXXIM

- Power-OK Signal to Control Drain Switch on GaAsFET
- Small µMAX Package
- 1µA Logic-Controlled Shutdown
- Ims Guaranteed Start-Up
- ♦ 2.5V to 5.5V Input
- ♦ -0.5V to -VIN Output at up to 4mA
- Operates with 0.22µF Capacitors (no inductors needed)

Ordering Information

E	PART	
	MAX881RC/D	MA
	MAX881REUB	MA
	MAX881REUB	MA

*Contact factory for dice specifications.

OUTPUT -2V ±2% (OR ADJ) INPUT 4mA, 1mVp-p 2.5V TO 5.5V RIPPLE IN OUT MAX881R ON-SHDN LOFF СР CONTROLS POK GaAsFET PA's DRAIN SWITCH CN NEGOUT FB GND



_ Maxim Integrated Products 1

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Typical Operating Circuit