FC3580 Micro Power Controller Tile Array

GENERAL DESCRIPTION

The FC3580 is an application focused tile array optimized for battery powered controller applications. This Tile Array can implement all of the functions required for a DC to DC convertor for 1 to 3 cell battery powered systems. Examples of other configurations are, various boost buck regulators, MOSFET drivers, loud speaker drivers, or power amplifier applications, etc.

A synchronous rectifying boost regulator capable of running with input voltages as low as 1V and efficiencies greater than 90% can be implemented on the FC3580.

The FC3580 is fabricated using our advanced BiCMOS technology. This 4GHz, 1.5µ process combines the advantages of high speed bipolar with dense CMOS. The bipolar devices can be used for high bandwidth, low offset and low noise amplifiers while the CMOS devices can be used for dense digital low power logic as well as for analog switches, the front ends of FET amplifiers, or power FETs. CMOS devices allow the design of power output stages that can swing rail to rail.

Some of the specialized components on the this array include; very low $R_{DS\ ON}$ (0.2 N-Channel, 0.5 P-Channel) CMOS output transistors, high quality poly resistors, stable poly-oxide capacitors, and a large amount of total resistance (>16M ohms) for low power designs.

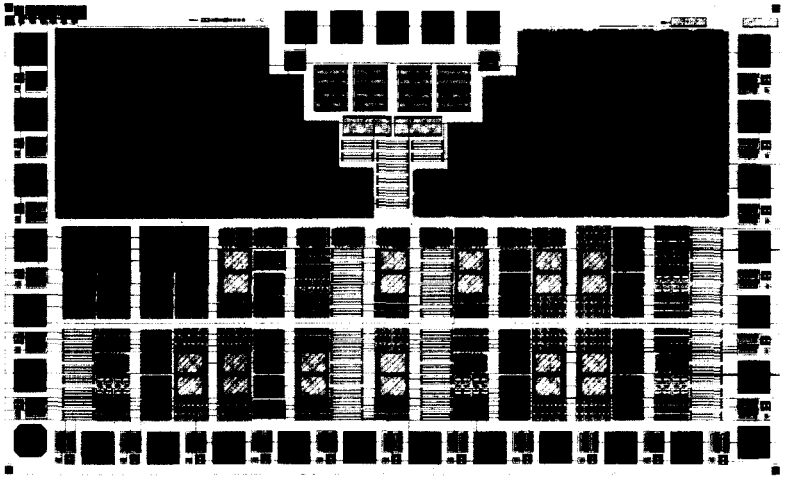
The small die size enables the FC3580 to fit in narrow (0.15") body SOIC packages.

FEATURES

- Application Focused Tile Array
- Ideal for Battery Powered Applications
- High Efficiency Down to 1V Inputs
- Rail to Rail Output Swings Possible
- Advanced 4 GHz, 1.5µ BiCMOS Process

ARRAY SUMMARY

NPN Transistors	152
PNP Transistors	152
NMOS Transistors	42
PMOS Transistors	42
Total Poly Resistance	3300K
Total Other Resistance	13.4M
Total MOS Capacitance	77pF
Total Components	836
Bond Pads	29
Die Size (mils)	70 x 110



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