

FC3510 General Purpose BiCMOS Tile Array

GENERAL DESCRIPTION

The FC3510 is one member of a high speed, high complexity family of General Purpose Tile Arrays using our new 5 volt, 4 GHz BiCMOS technology. These BiCMOS Tile Arrays allow high speed, high complexity, cost effective circuits to be easily integrated. The Tile Array methodology consists of simply designing and manufacturing two metal mask layers to implement the required circuitry on pre-manufactured base arrays. The base arrays contain all of the pre-defined and characterized components.

The BiCMOS process combines a fast 4 GHz analog bipolar technology with a dense 1.5 μ CMOS digital capability. This powerful combination enables a high level of integration of mixed analog and digital circuits to be achieved on a single silicon device.

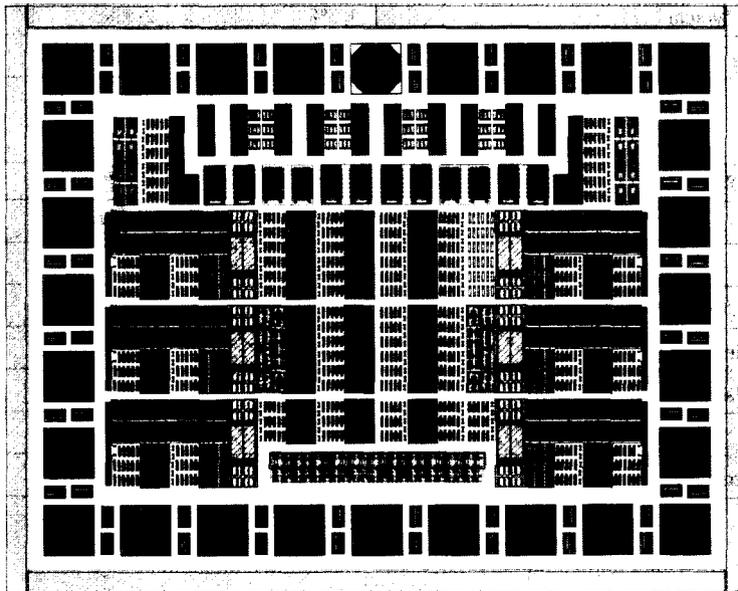
The array consists of different types of mini tiles. Each mini tile is a collection of a specific type of component such as NPNs, PNPs, NMOS or PMOS transistors, poly resistors, MOS capacitors, gates, etc. The FC3510 contains approximately 600 active devices and over 2.5M Ω of poly resistance. This array can realize up to 12 analog functional blocks combined with 22 digital gates.

FEATURES

- 5 volt, 4 GHz/1.5 μ BiCMOS Technology
- Ideal for Very High Speed, High Complexity Circuits
- Can Integrate 12 Analog Circuit Blocks with 22 CMOS Gates
- Fast, Low Risk Circuit Development and Production using the Tile Array Technology

ARRAY SUMMARY

NPN Transistors	364
PNP Transistors	96
NMOS Transistors	68
PMOS Transistors	68
Total Poly Resistance	2620K
Total MOS Capacitance	30pF
Total Components	1460
Bond Pads	28
Die Size (mils)	70 x 88.5



FC3510 BiCMOS Tile Array