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Description

The FS8107E is a serial data input, phase-locked loop IC with programmable input and reference frequency dividers. When combined with a VCO, the FS8107E becomes the core of a very low power frequency synthesizer well-suited for mobile communication applications such as paging systems. **Compared to the FS8100, the FS8107E is housed in a smaller package and also implements a separate pin for stand-by control.**

Features

- ◆ High maximum input operating frequency — 100 MHz at $V_{DD1} = 1.0$ V
- ◆ Up to 22 MHz internal crystal oscillator reference frequency at $V_{DD1} = 1.0$ V
- ◆ Extremely low current consumption ($I_{DD, total}$ typically 0.4 mA at $f_{FIN} = 90$ MHz)
- ◆ 16-bit programmable input frequency divider (including a $\div 32/33$ prescaler) with divide ratio range from 992 to 65535
- ◆ 13-bit programmable reference frequency divider (including a $\div 8$ prescaler) with divide ratio range from 40 to 65528
- ◆ Optional lock detector output
- ◆ Charge pump output for passive low-pass filter
- ◆ Quick-lock signal output for faster locking
- ◆ Separate pin for stand-by control
- ◆ TSSOP 16L package (0.65mm pitch)

Applications

- ◆ Pager
- ◆ Wireless communication system