AMERICAN MICROSYSTEMS, INC.

FS6132

VCXO Clock Generator IC

April 2000

1.0 Features

- On-chip tunable voltage-controlled crystal oscillator circuitry (VCXO) allows precise system frequency tuning (pull range typically +/-150 ppm)
- VCXO tuning range: 0-3V
- Uses inexpensive fundamental-mode crystals
- Integrated phase-locked loop (PLL) multiplies VCXO frequency to the higher system frequencies needed
- 5V core supply voltage (contact factory for 3.3V)
- 3.3V / 5V output supply voltage
- Small circuit board footprint
  16-pin 5.3mm (0.209") SSOP
- Custom frequency selections available - contact your local AMI Sales Representative for more information

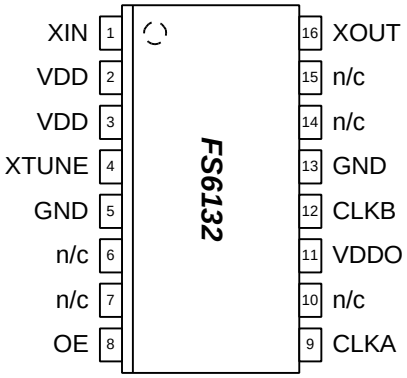
2.0 Description

The FS6132 is a monolithic CMOS clock generator IC designed to minimize cost and component count in digital video/audio systems.

At the core of the FS6132 is circuitry that implements a voltage-controlled crystal oscillator when an external resonator is attached. The VCXO allows device frequencies to be precisely adjusted for use in systems that have frequency matching requirements, such as digital satellite receivers.

A high-resolution phase-locked loop generates the output clock frequencies (CLKA and CLKB). These frequencies are phase-locked and frequency-locked to the VCXO frequency.

Figure 1: Pin Configuration



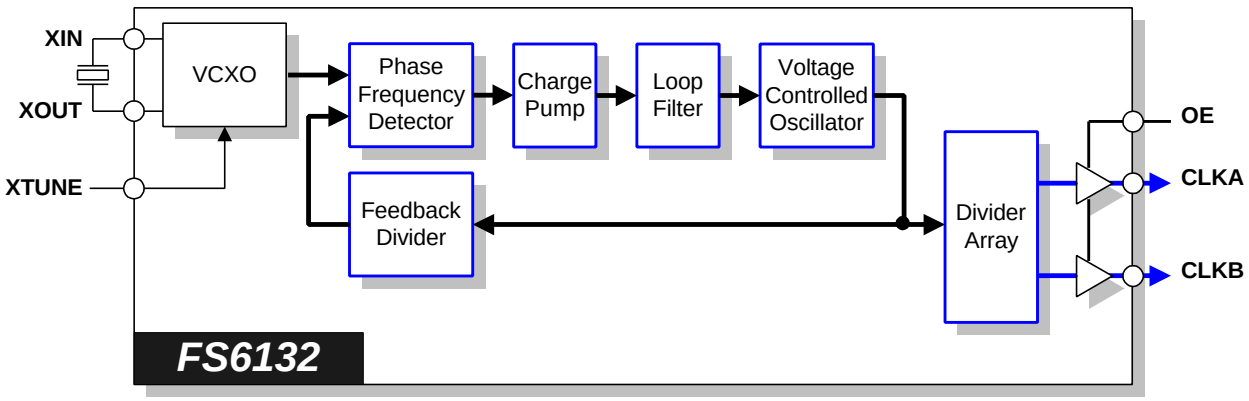
16-pin SSOP (5.3mm)

Table 1: Crystal / Output Frequencies

DEVICE	f_{XIN} (MHz)	CLKA (MHz)	CLKB (MHz)
FS6132-01	13.5	54.000	27.000

NOTE: Contact AMI for custom PLL frequencies

Figure 2: Block Diagram



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