EVALUATION SYSTEM FOR TC5XX A/D CONVERTERS

FEATURES

■ **Evaluation and Prototyping Kit for TC500, TC510, TC514 and TC520A**

■ **Pre-programmed Control Processor for Easy Operation with Any RS232 Terminal, Personal Computer, etc.**

■ **User Interface Allows Programming System Parameters and Displaying/Logging Data Using High-level Commands**

■ **Prototyping Area for User Application Circuitry**

■ **On-board Positive Voltage Regulator and Negative Supply Generator for Single Supply Operation**

■ **Can be Used as a TC5xx Control Emulator for System Debugging**

■ **Windows™ *Terminal*™ and Microsoft™ *Excel*™ Support Files Included - No Circuit Design Required!***

GENERAL DESCRIPTION

TC500EV is an evaluation and development system for TelCom's TC5xx family of dual slope integrating converters. TC500EV consists of the TC500 and TC514 A/D converters; a pre-programmed microcontroller, TC520A Serial Interface Adapter, a ±3V regulated power supply and user prototyping area.
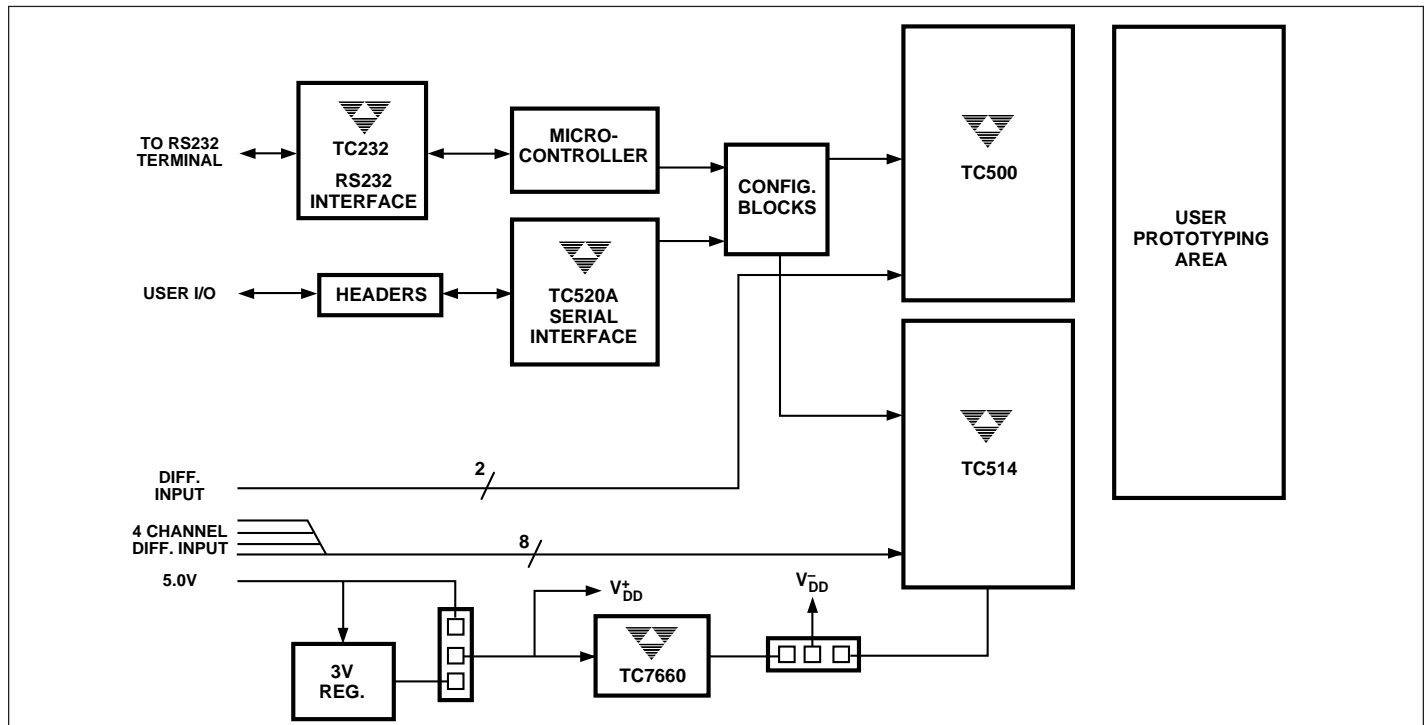
TC500EV connects to any RS232 terminal. Typically the host is an IBM PC compatible or other personal computer running a communications program such as Windows™ *Terminal*™, or a dumb terminal.* The user supplies a fixed 5.0V power supply and an RS232 cable.

Convenient jumper options allow operation as either a single channel (TC500) or 4 channel (TC514) A/D converter to a maximum of 18 bits (Overrange + Sign + Data). Conversion data can be accessed via the RS232 port, the on-board serial interface adapter (TC520A), or by user-provided external logic. Conversion speed and resolution are programmable. Jumpers allow the user to select factory-installed values for the integrating resistor and capacitor, or to install specific values to better suit a specific application.

A software utility in the form of an *Excel*™ spreadsheet is included that calculates all components' values given the desired system parameters.* No design required!

3

FUNCTIONAL BLOCK DIAGRAM

*All trademarks are the property of their respective owners.