MAX2084EVKIT

Evaluation Kit for the MAX2084

NDA Required. Request Full Data Sheet

Description

The MAX2084 evaluation kit (EV kit) is a fully assembled and tested circuit board that contains all components necessary to evaluate the performance of the MAX2084 low power, high performance 16-channel ultrasound receiver. The EV kit includes software compatible with the Windows XP®, Windows Vista®, and Windows 7® operating systems. The software provides a simple graphical user interface (GUI) for programming the features of the MAX2084 over a USB 3.0-compliant, super-speed interface. The MAX2084 digital LVDS outputs (VGA mode) are captured and stored using the companion Xilinx KC705 FPGA evaluation board for the Kintex-7 series FPGAs. In CWD mode, the CWD analog outputs are amplified, filtered and digitized using external circuitry, and the data is stored in the same manner. The FPGA board is compatible with Windows XP®, Windows Vista®, and Windows 7®.

Key Features

- Allows Fast and Convenient Evaluation of MAX2084, 16-Channel, Ultrasound Receiver
- MAX2084 EV Kit Allows External Direct Drive or On-Board Regulated Power Supplies (Alternatively)
- 16-Channel Operation and Data Capture in VGA Mode or CW Doppler Mode
- Direct Interface with Kintex-7 FPGA Board Using 2 VITA-57 Compliant FPGA Mezzanine Card Connectors From Samtec (One High Pin Count, One Low Pin Count)
- Low-Power Nap and Shutdown Operating Modes
- On-Board Single-Ended Analog Input Transformer Circuitry
- Two On-Board MAX14808 Octal Three-Level/ Quad Five-Level High Voltage Pulsers (Pulser Control To Be Implemented In A Later Version Of Software. See Errata.)
- Software Selectable TX Digital Pulser Mode, Frequency, and Drive Current Control (Pulser Control to be Implemented in a Later Version of Software. See Errata.)
- Single-Ended to Differential ADC Clock Configuration
- On-board, Low Phase Noise, Crystal Oscillator, Clock Sources for ADC clock, CWD LO, and TX Synchronization. External Drive Alternatives Also Available
- Dual, Fast/Slow (Filtered), DAC-Driven, VGA Gain Control Paths
- CWD I/Q Measurement Channels with Low-Noise Amplifiers, Fast VGA-CWD Mode Transient Recovery Switches, and 20-bit, 1Msps ADCs
- Fully Assembled and Tested

Applications/Uses

- Echocardiograph Systems
- Medium and High-Performance Cart-Based Ultrasound Systems
- Medium and High-Performance Portable Ultrasound Systems
- Real-Time 4D Ultrasound Systems
- Shear Wave Elastography Systems