November 1996-4

## XR-2206/2211/2212

# **Evaluation System User Manual**



#### NOTICE

EXAR Corporation reserves the right to make changes to the products contained in this publication in order to improve design, performance or reliability. EXAR Corporation assumes no responsibility for the use of any circuits described herein, conveys no license under any patent or other right, and makes no representation that the circuits are free of patent infringement. Charts and schedules contained herein are only for illustration purposes and may vary depending upon a user's specific application. While the information in this publication has been carefully checked; no responsibility, however, is assumed for inaccuracies.

EXAR Corporation does not recommend the use of any of its products in life support applications where the failure or malfunction of the product can reasonably be expected to cause failure of the life support system or to significantly affect its safety or effectiveness. Products are not authorized for use in such applications unless EXAR Corporation receives, in writing, assurances to its satisfaction that: (a) the risk of injury or damage has been minimized; (b) the user assumes all such risks; (c) potential liability of EXAR Corporation is adequately protected under the circumstances.

Copyright 1996 EXAR Corporation
User Manual November 1996
Reproduction, in part or whole, without the prior written consent of EXAR Corporation is prohibited.



### Table of Contents

GENERAL DESCRIPTION	5
BOARD SCHEMATIC DIAGRAM	5
COMPONENT CONSIDERATIONS	5
Figure 1. Demo Board Component Layout	6
Figure 2. XR-2206 Demo Board	7
Figure 3. XR-2211 Demo Board	8
Figure 4. XR-2212 Demo Board	9





This Page Intentionally Left Blank

## XR-2206-11-12ES



XR-2206/2211/2212 Evaluation System

#### **GENERAL DESCRIPTION**

This demo board is a blank printed circuit card that simplifies design, breadboarding, and test of circuits using the XR-2206, XR-2211, or the XR-2212. The 5.0 by 4.75 inch board can be used to build practically all of the databook application circuits that are given for these devices. With the exception of common power feed, each chip and its associated passive components are independent circuit blocks on the demo board. Therefore, it can be assembled with any one or more of the chips according to the user's needs.

#### **BOARD SCHEMATIC DIAGRAM**

The schematic diagram contains separate sections for the XR-2206, XR-2211, and the XR-2212. Circuit design for a specific application requires using these diagrams while referring to the appropriate circuits and equations that are given for each device in the EXAR databook. A breadboard section with isolated power and ground busses is also provided for additional analog or digital circuitry that may be required.

The purpose of this schematic is to show the circuit capabilities for each integrated circuit. Although the component values shown are reasonable and each of the

three devices will function properly with them, they are provided for illustration only, and are not chosen for any specific application. Also, all the parts that are shown may not be required for a particular circuit since the schematic shows everything that the board can accommodate.

#### **COMPONENT CONSIDERATIONS**

The component marking, which is 1:1 scale, gives individuals who do not have an actual demo board an approximate idea of component sizes.

Power, input, and output connections are made at pads that are located close to the associated IC pin or component. Holes for five banana jacks or binding posts are located at the rear of the board. Two of these should be used for power and ground, and the remaining three can be wired to the I/O pads as needed.

The style of electrical components that the board uses should be readily available. The potentiometers are the inexpensive vertical-mount PC board type. Resistors are 1/4 watt and the bypass capacitors can be  $0.1\mu F$  monolithic ceramic type with radial leads spaced 0.1 inch. The electrolytic capacitors are also vertical mount units with 0.1 inch lead spacing. The board area provided for the various timing capacitors should be sufficient for small mica, polystyrene, or mylar units.



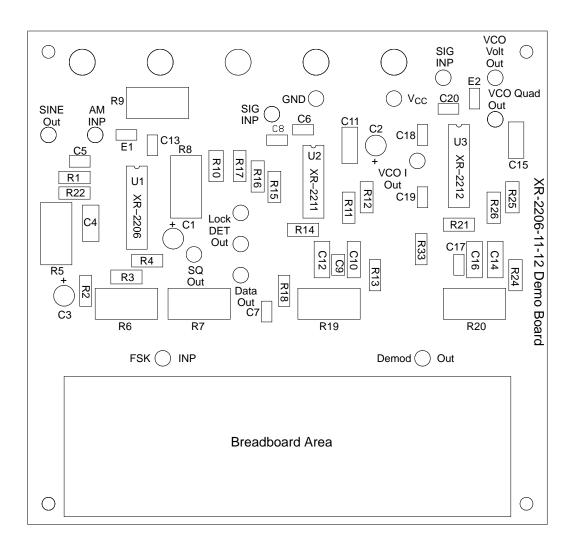


Figure 1. Demo Board Component Layout



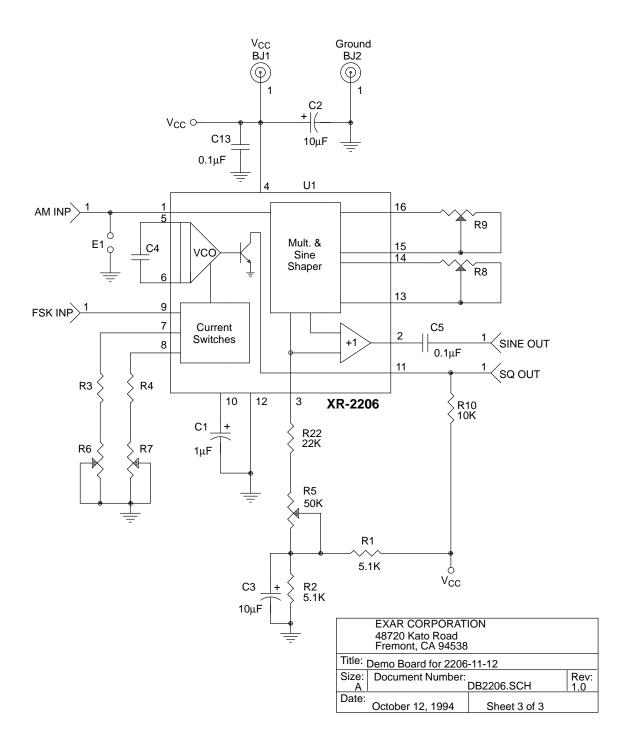


Figure 2. XR-2206 Demo Board



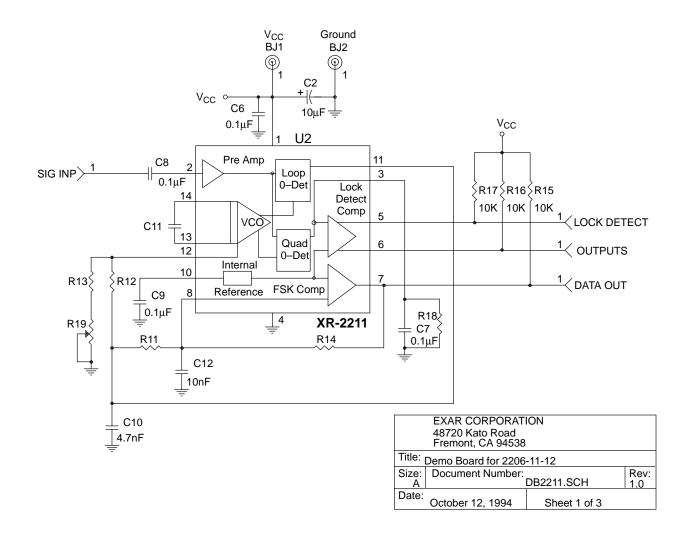


Figure 3. XR-2211 Demo Board



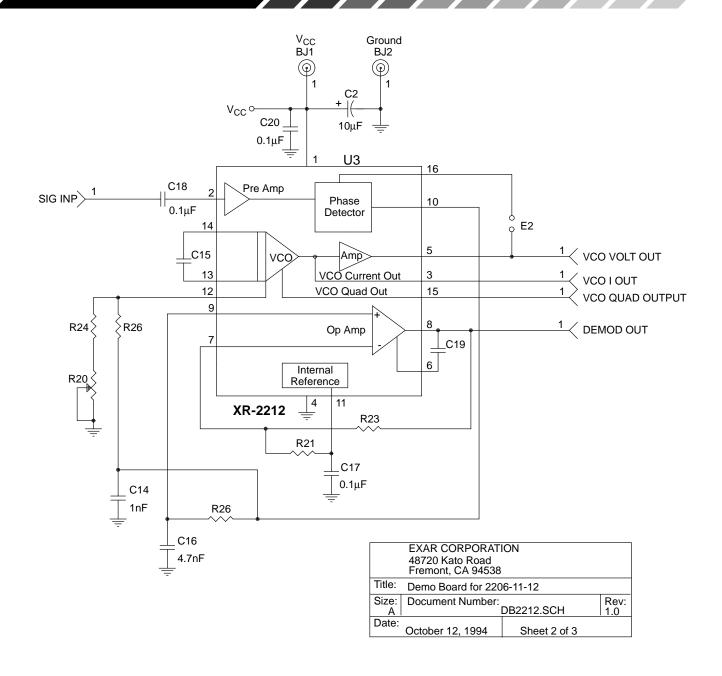


Figure 4. XR-2212 Demo Board



# **Notes**



# **Notes**



**EXAR** ...the analog plus company  $^{TM}$ 

EXAR Corporation 48720 Kato Road Fremont, CA 94538 (510) 668-7000, Fax (510) 668-7017 Worldwide Web Site: http://www.exar.com