



XRD98L59ZGEVAL

August2000-2

XRD98L59ZGEVAL
(Direct Solder)

Evaluation System
User Manual

EVALUATION KIT PART LIST

This kit contains the following:

- XRD98L59ZGEVAL Application Printed Circuit Board
- XRD98L59 CCD Image Digitizer
- XRD98L59ZGEVAL Evaluation System User Manual
- XRD98L59 Data Sheet

FEATURES

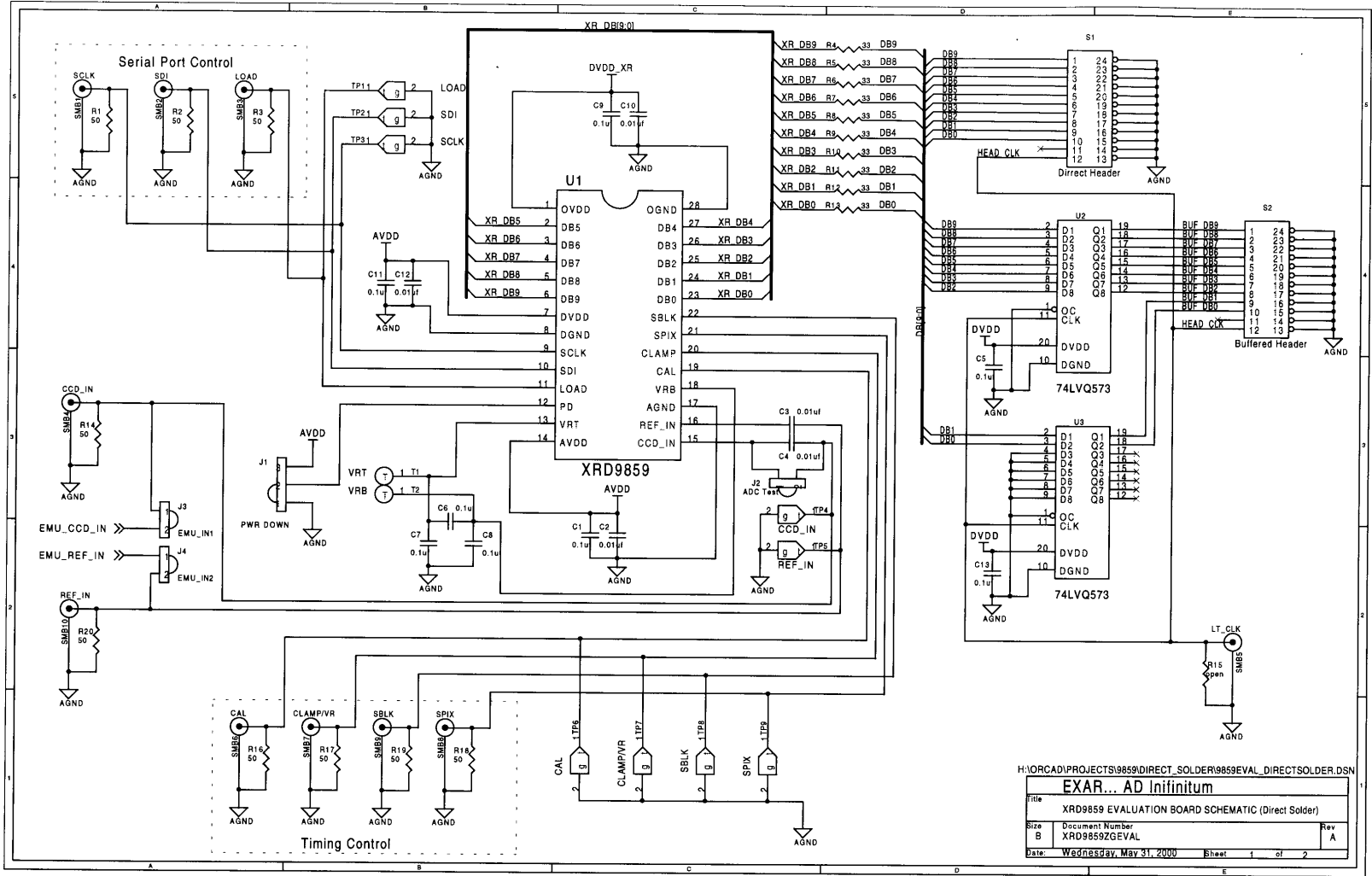
- Easy Evaluation of the XRD98L59 CDS, PGA, and ADC functions
- CCD Emulator on the PCB
- Analog & Digital Support Circuitry
- 3V Evaluation
- Optimized and proven layout
- Direct solder of XRD98L59 for improved noise characterization

INTRODUCTION

The XRD98L59ZGEVAL is a complete printed circuit test board designed to permit quick and accurate evaluation of EXAR's XRD98L59 Image Digitizer. The XRD98L59 is an analog to digital interface for CCD video, digital, and PC cameras. The chip includes a correlated double sample & hold (CDS), a programmable gain amplifier (PGA), and a low power 10-bit analog to digital converter (ADC) with automatic offset calibration.

The XRD98L59ZGEVAL is a four layer PCB with an optimized layout for 10-bit accurate conversions at greater than 20MHz sampling rates. The board contains the support circuitry for evaluation at 3V power supplies.

Pixel switching amplifiers (U4 & U5) emulate the output signal of a CCD by switching between two externally provided analog voltage sources. When the actual CCD is unavailable, this emulator provides a method to test the XRD98L59.



H:\ORCAD\PROJECTS\9859\DIRECT_SOLDER\9859EVAL_DIRECTSOLDER.DSN

EXAR... AD Inifinitum		
File	XRD9859 EVALUATION BOARD SCHEMATIC (Direct Solder)	
Size	Document Number	Rev
B	XRD9859ZGEVAL	A
Date:	Wednesday, May 31, 2000	Sheet 1 of 2

Figure 1. XRD98L59ZGEVAL Schematic Page 1



Preliminary XRD98L59ZGEVAL

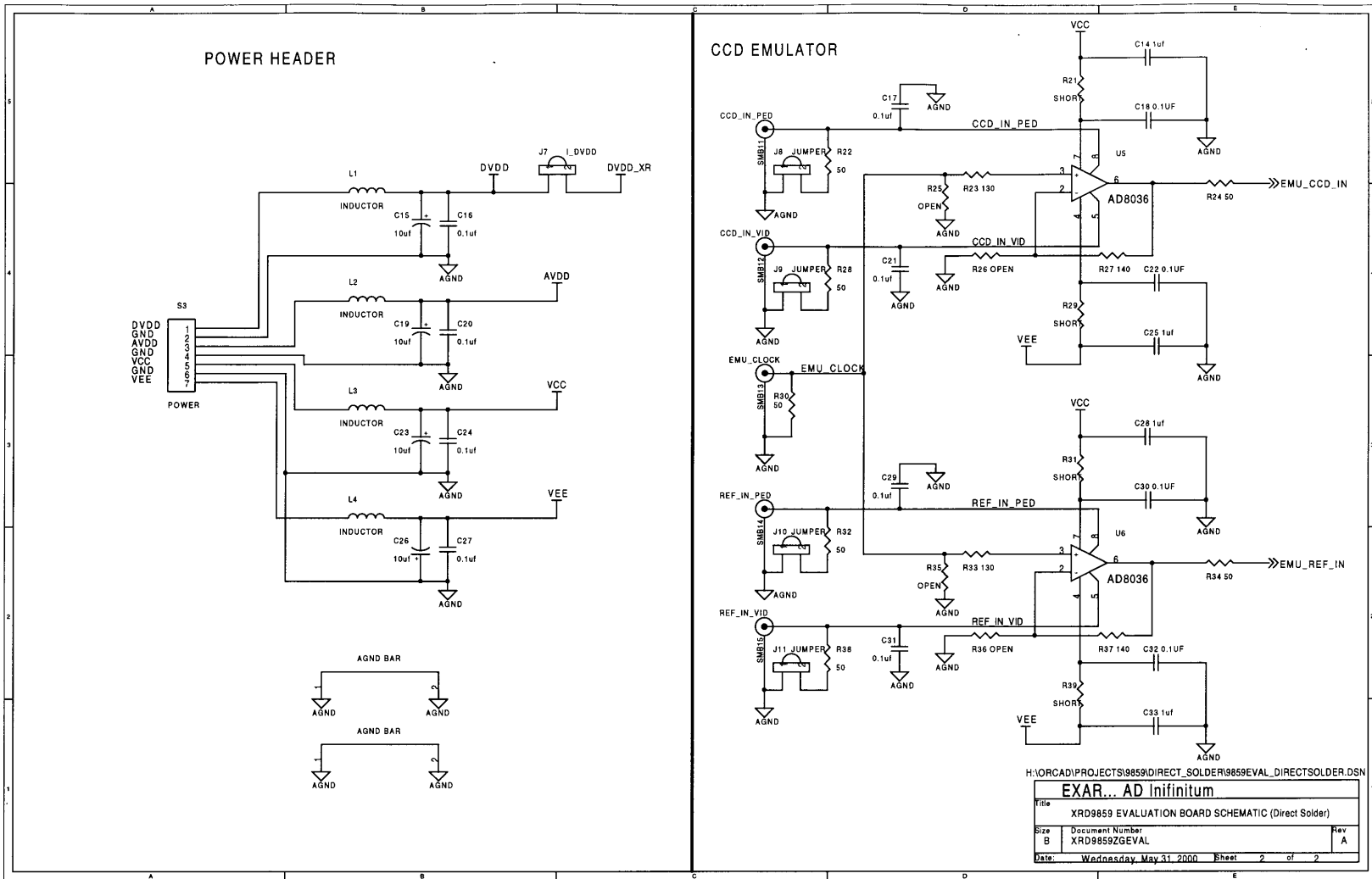


Figure 2. XRD98L59ZGEVAL Schematic Page 2

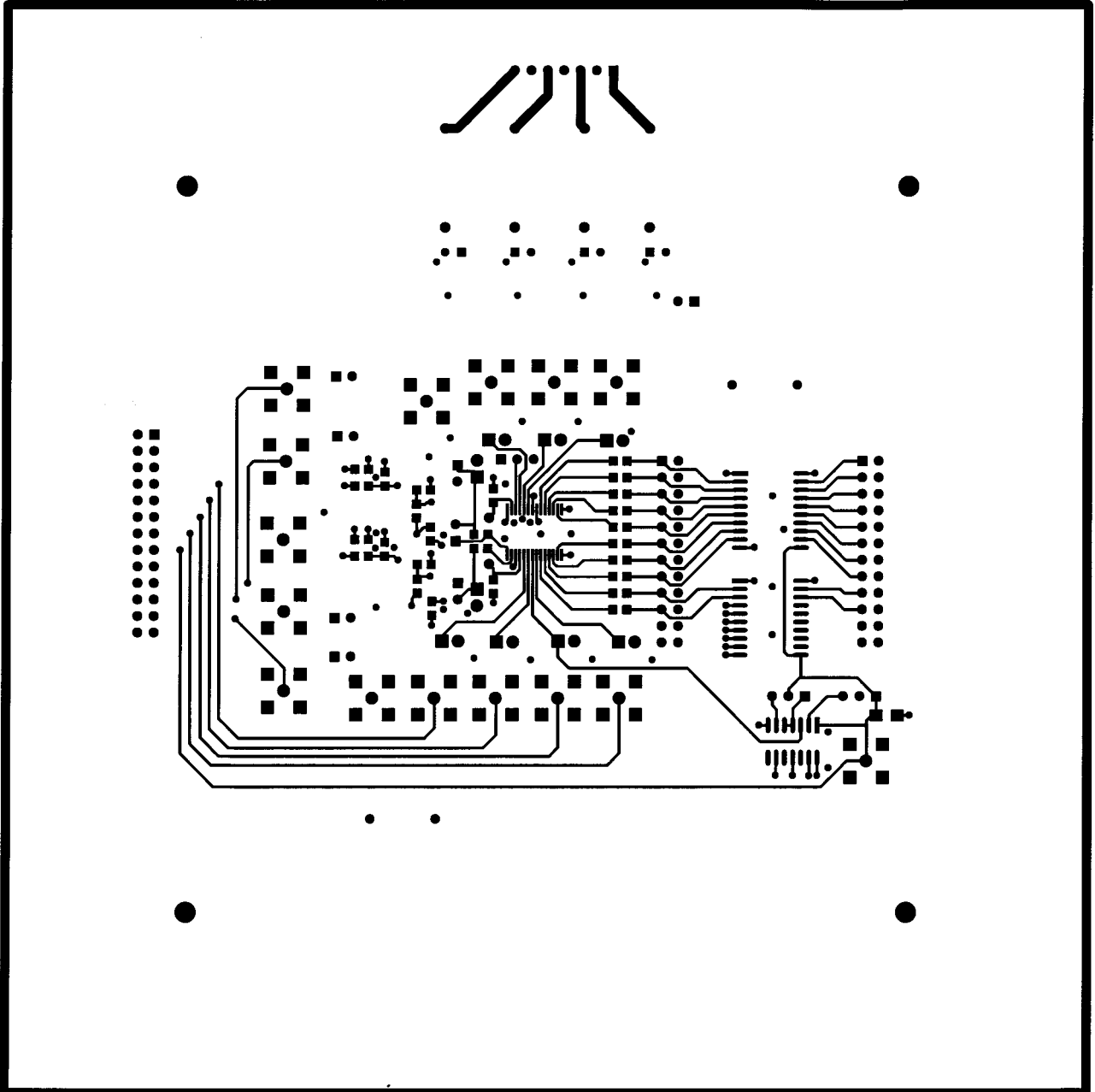


Figure 3. XRD98L59EVAL Top Layer

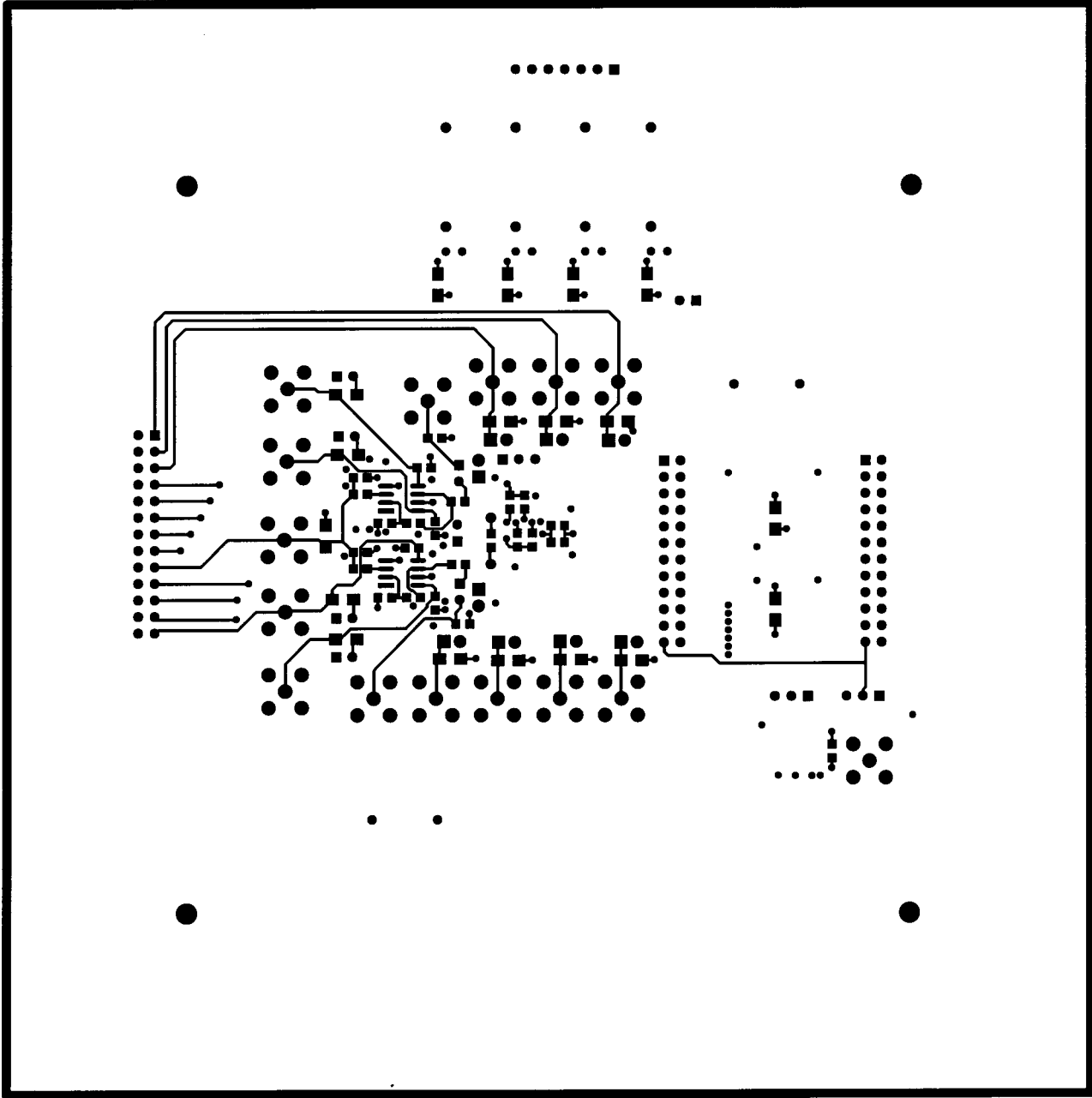


Figure 4. Bottom Layer

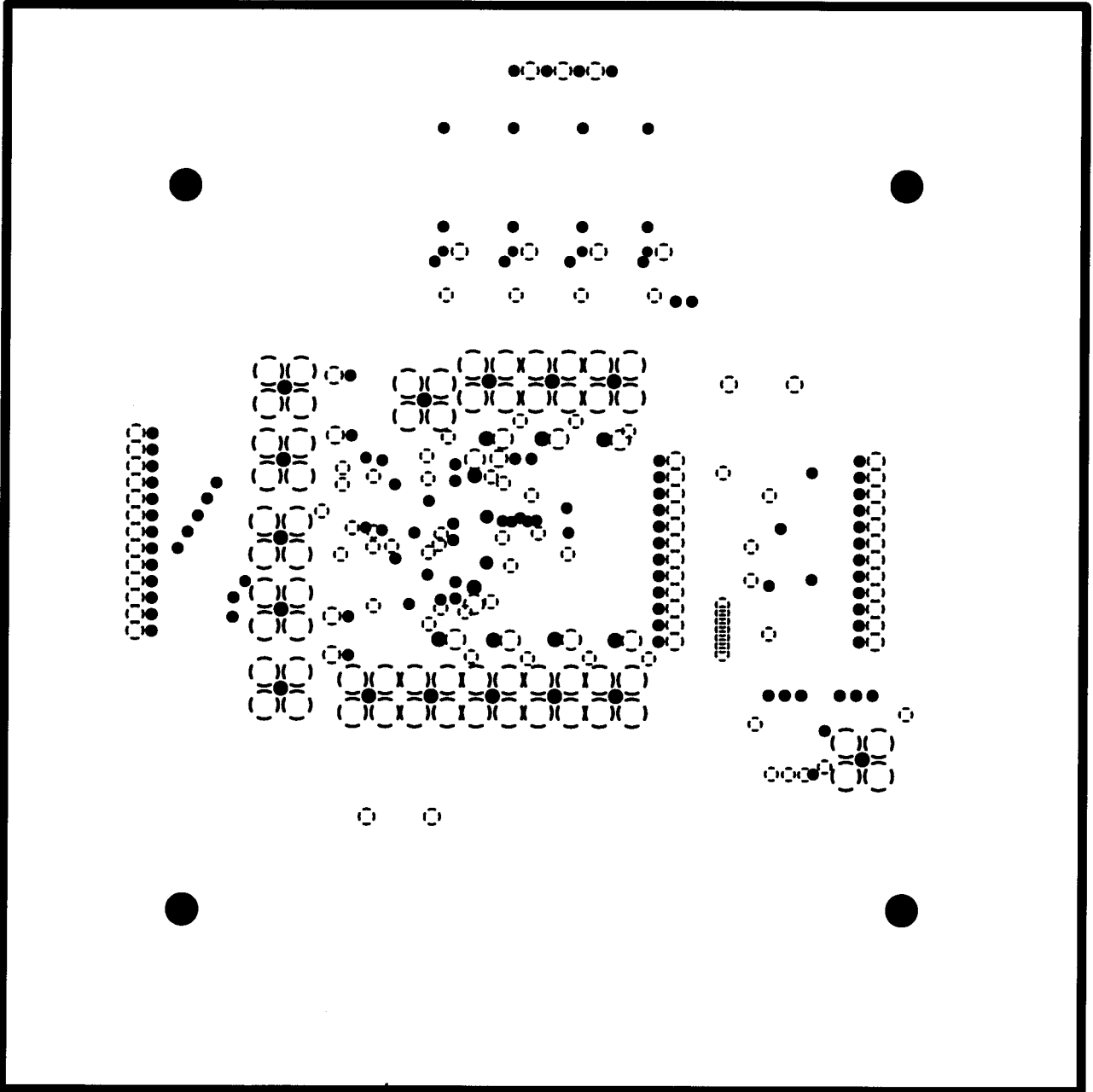


Figure 5. Ground Plane

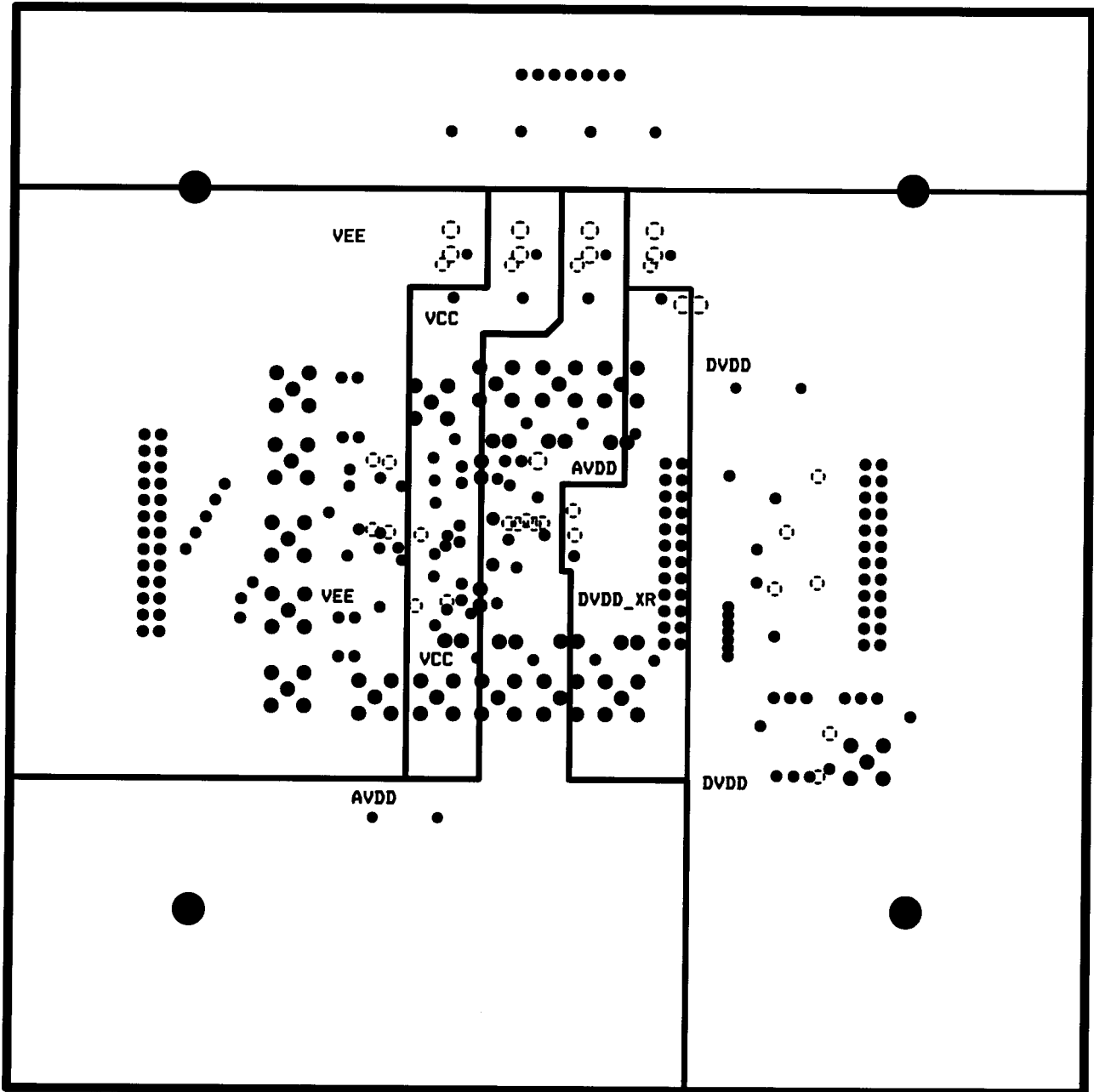


Figure 6. Power Plane

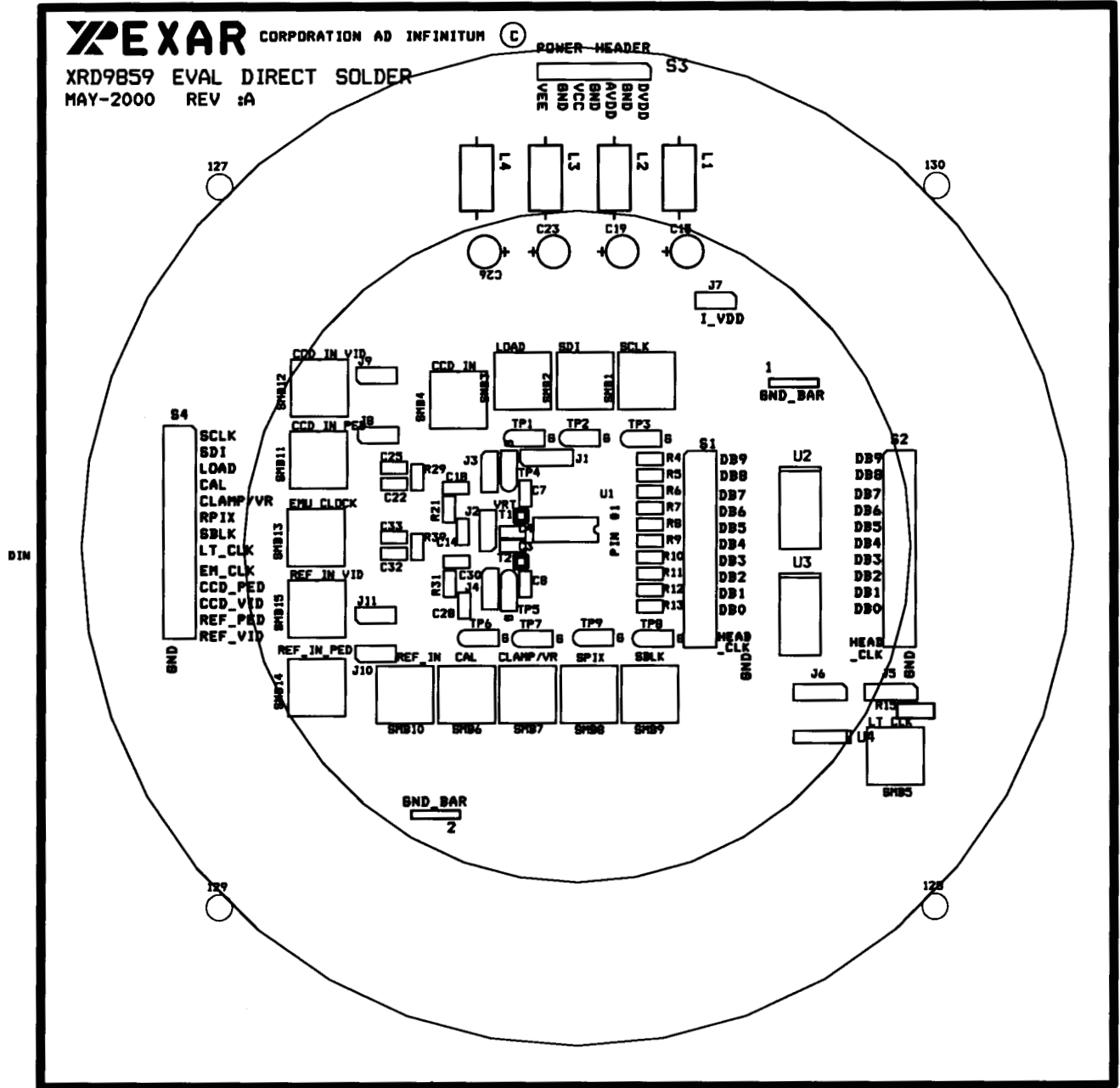


Figure 7. Top Silk Screen

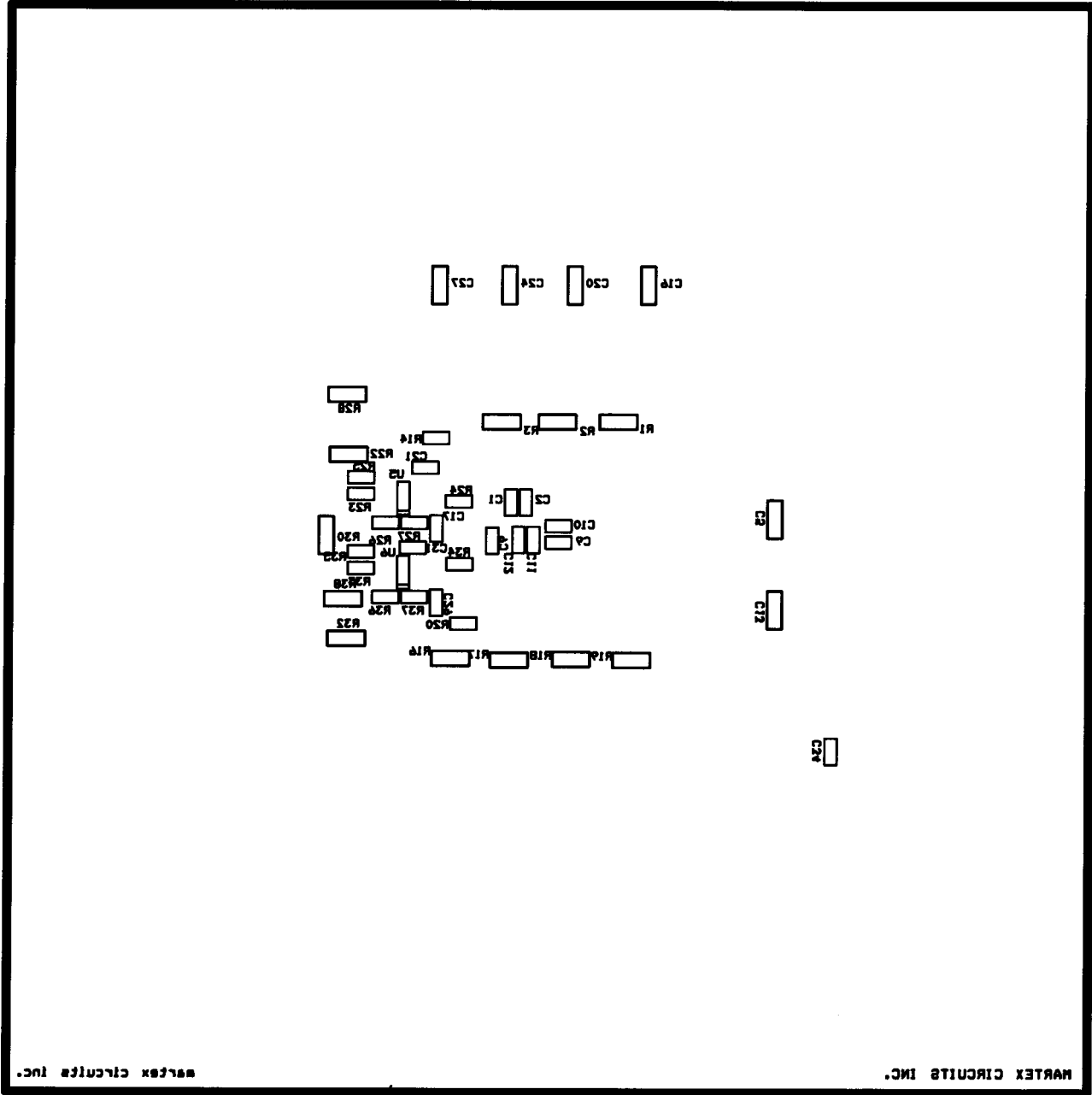


Figure 8. Bottom Silk Screen

Notes

Notes

Notes

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 here in 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 in accuracies.

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 2000 EXAR Corporation

Datasheet August 2000

Reproduction, in part or whole, without the prior written consent of EXAR Corporation is prohibited.