

FEATURES

Full-featured evaluation board for the AD7912/AD7922
EVAL-CONTROL-BRD2 compatible
Standalone capability
On-board analog buffering and reference
Various linking options
PC software for control and data analysis when used
with EVAL-CONTROL-BRD2

GENERAL DESCRIPTION

This data sheet describes the evaluation board for the AD7912/AD7922. The AD7912/AD7922 are 12- and 10-bit, high speed, low power successive-approximation ADCs, respectively. The parts operate from a single 2.35 V to 5.25 V power supply and feature throughput rates up to 1 MSPS. Full data on the AD7912/AD7922 is available in the AD7912/AD7922 data sheet, which

is available from Analog Devices, Inc., and should be consulted in conjunction with this data sheet when using the evaluation board.

On-board components include an AD780 (a pin-programmable, 2.5 V or 3 V, ultrahigh precision band gap reference), an ADR435 (a high precision, low noise voltage reference, providing a 5 V reference voltage), and a AD8022 (a dual op amp used to buffer the analog inputs). There are various link options, which are explained in detail in Table 1.

Interfacing to this board is done through a 96-way connector. This 96-way connector is compatible with EVAL-CONTROL-BRD2, which is also available from Analog Devices. External sockets are provided for the SCLK, DIN, DOUT, and \overline{CS} signals; the bipolar input signals at the AIN and the VBIASED inputs of the two bias-up circuits; and the two analog input channels (VIN inputs).

FUNCTIONAL BLOCK DIAGRAM

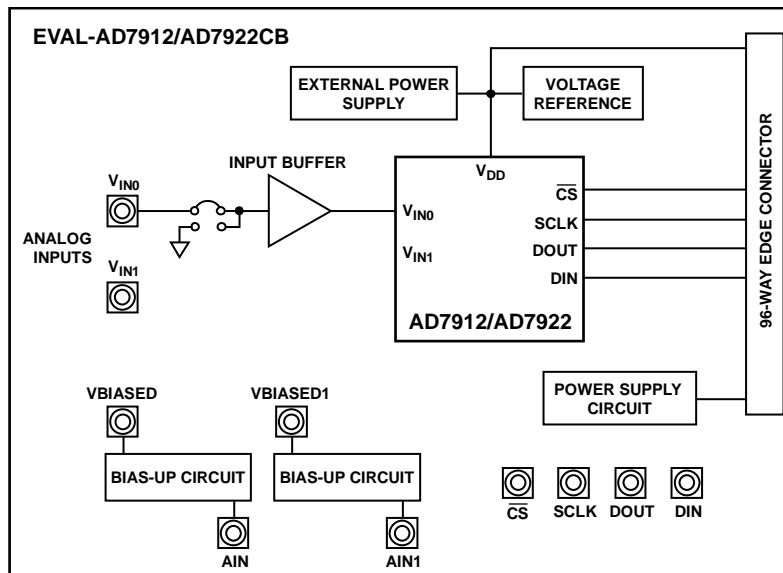


Figure 1.

Rev. 0

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REVISION HISTORY

10/07—Revision 0: Initial Version

EVALUATION BOARD HARDWARE

POWER SUPPLIES

When using this evaluation board with EVAL-CONTROL-BRD2, all supplies are provided from the controller board through the 96-way connector. When using the board as a standalone unit, external supplies must be provided.

This evaluation board has seven power supply inputs: EXT_VDD, AGND, +12 V, -12 V, AGND, DVDD, and DGND. The V_{DD} for the AD7912/AD7922 can be supplied either from the EXT_VDD external supply or from the selected reference chip. The +12 V and -12 V inputs are used to supply the AD780, the ADR435, and the AD8022 dual op amps. One or both of the AGND inputs is connected to 0 V. The DVDD input can be used to supply a separate 5 V for the 7S04 DVDD pin. The DGND input must be tied to 0 V.

The supplies are decoupled to the relevant ground plane with 10 μ F tantalum and 0.1 μ F multilayer ceramic capacitors at the pin where they enter the board. The supply pins of the dual op amps and the references are also decoupled to AGND with 10 μ F tantalum and 0.1 μ F ceramic capacitors. The AD7912/AD7922 V_{DD} supply pin is decoupled to AGND with 10 μ F tantalum, 1 μ F ceramic, and 0.1 μ F multilayer ceramic capacitors.

Extensive ground planes are used on this board to minimize the effect of high frequency noise interference. There are two ground planes, AGND and DGND. These are connected at one location close to the AD7912/AD7922.

LINK OPTIONS

There are 18 link options, which must be set for the required operating setup before using the evaluation board. The functions of these options are outlined in Table 1.

If the user is interested in testing only one of the input channels, the nonselected channel should not be left floating. Therefore, that analog input should be connected to ground by means of LK1 or LK2. LK1 and LK2 need to be in Position B if the nonselected input is VIN0 or VIN1, respectively.

SETUP CONDITIONS

Care should be taken before applying power and signals to the evaluation board to ensure that all link positions are as per the required operating mode. Table 2 shows the position in which all the links are set when the evaluation board is shipped. The board is compatible with the EVAL-CONTROL-BRD2 when shipped.

Table 1.

Link No.	Function
LK1, LK2	These link options allow the user to connect the input of the AD8022 analog buffer to the VIN input sockets or to AGND. <ul style="list-style-type: none"> When this link is in Position A, the VIN socket is tied to the input of the AD8022 buffer. In this configuration, an analog signal applied to the VIN input socket is buffered and presented at the AD7912/AD7922 analog input. When this link is in Position B, the AD8022 buffer input is tied to AGND.
LK3, LK4	These link options set the DC bias voltage that is applied to the optional bias-up circuit. <ul style="list-style-type: none"> When this link is in Position A, the bias voltage is set to the same level as the voltage that is applied to the AD7912/AD7922 V_{DD} pin. In this configuration, a bipolar analog input applied to the AIN SMB socket is biased up by the bias circuit and is presented at the VBIASED SMB as a unipolar signal biased around V_{DD}/2. When this link is in Position B, the bias voltage is set to AGND. In this configuration the bias-up circuit is not used.
LK5	This link option is used to connect the output of either the ADR435 or the AD780 to the V _{DD} pin of the AD7912/AD7922 (if LK12 is in Position C). <ul style="list-style-type: none"> When this link is in Position A, the ADR435 supplies the V_{DD} voltage for the AD7912/AD7922. When this link is in Position B, the AD780 supplies the V_{DD} voltage for the AD7912/AD7922.
LK6	This link option is used to select a 50 Ω termination on the analog input buffer circuit, the AIN1 socket. <ul style="list-style-type: none"> When this link is inserted, the 50 Ω termination is applied. When this link is removed, the 50 Ω termination is removed.
LK7	This link option is used to select the source of the \overline{CS} signal for the AD7912/AD7922. <ul style="list-style-type: none"> When this link is in Position A, the \overline{CS} signal is generated by the EVAL-CONTROL-BRD2 via the 96-way connector. When this link is in Position B, the \overline{CS} signal is applied from an external source via the \overline{CS} MB socket.
LK8	This link option allows the user to connect the data output pin, DOUT, of the AD7912/AD7922 to the EVAL-CONTROL-BRD2 or to an external SMB socket. <ul style="list-style-type: none"> When this link is in Position A, the DOUT pin of the AD7912/AD7922 is connected to the EVAL-CONTROL-BRD2. When this link is in Position B, the DOUT pin of the AD7912/AD7922 is connected to the external DOUT SMB socket.
LK9	This link option selects the source of the data to be applied to the DIN pin of the AD7912/AD7922. <ul style="list-style-type: none"> When this link is in Position A, the data being applied to the DIN pin of the AD7912/AD7922 comes from the EVAL-CONTROL-BRD2. When this link is in Position B, the data being applied to the DIN pin of the AD7912/AD7922 is from an external source applied via the DIN SMB socket.

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Link No.	Function
LK10	This link option is used to select the source of the +12 V supply. <ul style="list-style-type: none"> In Position A, the +12 V is supplied from the EVAL-CONTROL-BRD2 through the 96-way connector. In Position B, the +12 V is supplied from an external source through the power connector, J2.
LK11	This link option is used to select the source of the –12 V supply. <ul style="list-style-type: none"> In Position A, the –12 V is supplied from the EVAL-CONTROL-BRD2 through the 96-way connector. In Position B, the –12 V is supplied from an external source through the power connector, J2.
LK12	This link selects the source of the V_{DD} supplied to the AD7912/AD7922. <ul style="list-style-type: none"> When this link is in Position A, the V_{DD} is supplied from the EVAL-CONTROL-BRD2. When this link is in Position B, the V_{DD} must be supplied from an external source via J3. When this link is in Position C, the V_{DD} is supplied from one of the voltage references, the AD780 or the ADR435.
LK13	This link selects the source for the SCLK signal applied to the SCLK pin of the AD7912/AD7922. <ul style="list-style-type: none"> When this link is in Position A, SCLK is applied from an external source via the SCLK SMB socket. When this link is in Position B, the SCLK signal is an inverted signal from the EVAL-CONTROL-BRD2. When this link is in Position C, the SCLK is sourced directly from the EVAL-CONTROL-BRD2.
LK14	This link option controls the program pin of the AD780 voltage reference. <ul style="list-style-type: none"> When this link is inserted, the AD780 output voltage is set to +3 V. When this link is removed, the AD780 output voltage is set to +2.5 V.
LK15	This link option is used to select a 50 Ω termination on the analog input buffer circuit, the AIN socket. <ul style="list-style-type: none"> When this link is inserted, the 50 Ω termination is applied. When this link is removed, the 50 Ω termination is removed.
LK16, LK17	These link options are used to select a 50 Ω termination on the analog input buffer circuit, the VIN0 and VIN1 socket, respectively. <ul style="list-style-type: none"> When this link is inserted, the 50 Ω termination is applied. When this link is removed, the 50 Ω termination is removed.
LK18	This link selects the source of the $V_{CC} + 5$ V supply for the 7S04. <ul style="list-style-type: none"> When this link is in Position A, V_{CC} power is supplied from the same power source supplying the AD7912/AD7922 V_{DD} pin. When this link is in Position B, V_{CC} power must be supplied from an external source via the J3 power connector.

Table 2. Initial Link Positions

Link No.	Position	Function
LK1	A	Input of the AD8022 (U5) is connected to VIN0 (Channel 0).
LK2	B	Input of the AD8022 (U5) is connected to AGND.
LK3, LK4	A	V_{DD} is selected as the dc bias voltage for the bias-up circuit.
LK5	Removed	This is not relevant due to the position of LK12.
LK6	Removed	50 Ω termination resistor is not applied to the input of the bias-up circuit.
LK7	A	\overline{CS} signal is generated by the EVAL-CONTROL-BRD2.
LK8	A	DOOUT pin is connected to the EVAL-CONTROL-BRD2.
LK9	A	Data applied to DIN pin of the AD7912/AD7922 is generated by the EVAL-CONTROL-BRD2.
LK10	A	+12 V is supplied from the EVAL-CONTROL-BRD2 via J1.
LK11	A	–12 V is supplied from the EVAL-CONTROL-BRD2 via J1.
LK12	A	V_{DD} for the AD7912/AD7922 is supplied from the EVAL-CONTROL-BRD2 via J1.
LK13	C	SCLK signal is sourced directly from the EVAL-CONTROL-BRD2.
LK14	Removed	AD780 is set to provide a 2.5 V reference.
LK15	Removed	50 Ω termination resistor is not applied to the input of the bias-up circuit.
LK16, LK17	Removed	50 Ω termination resistor is not applied to the VIN0 and VIN1 analog inputs.
LK18	Removed	This is not relevant due to the position of LK13 because 7S04 is not in use.

EVALUATION BOARD INTERFACING

Interfacing to the evaluation board is via a 96-way connector, J1. J1 is used to connect the evaluation board to the EVAL-CONTROL-BRD2 or to another system. The pinout for the J1 connector is shown in Figure 2, and its pin designations are given in Table 4.

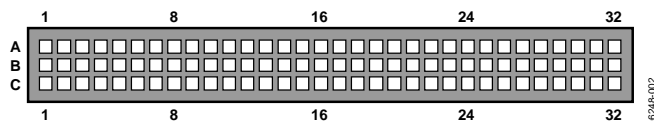


Figure 2. Pin Configuration for the 96-Way Connector, J1

Table 3. 96-Way Connector Pin Description

Pin	Description
DR0	Data Receive Zero. Serial data from the AD7912/AD7922 is provided at this output. Sixteen bits of data are provided with two leading 0s, a channel identifier bit and a mode bit, followed by 12 bits of conversion data provided MSB first (for the AD7922). See AD7912/AD7922 data sheet.
DT0	Data Transmit Zero. Serial data from the DSP is provided at this pin. The third and fourth MSB bits from the 16-bit word are used by the ADC; the remaining bits are ignored.
TFS0	Transmit Frame Sync Zero.
RFS0	Receive Frame Sync Zero. Both of these inputs, TRS0 and RFS0, are connected to the AD7912/AD7922 CS pin to initiate conversions and to frame the serial data transfer.
SCLK0	Serial Clock Zero. This continuous clock is connected to the SCLK pin of the AD7912/AD7922 via LK13 to obtain serial data from the AD7912/AD7922.
DGND	Digital Ground. These lines are connected to the digital ground plane on the evaluation board. It allows the user to provide the digital supply via the connector, along with the other digital signals.
AGND	Analog Ground. These lines are connected to the analog ground plane on the evaluation board.
AVDD	Analog +5 V Supply. These lines are connected to the AVDD supply line on the board via LK12.
+12 V	+12 V Supply. This line is connected to the +12 V supply line on the board via LK10.
-12 V	-12 V Supply. This line is connected to the -12 V supply line on the board via LK11.

Table 4. 96-Way Connector Pin Designations¹

	ROW A	ROW B	ROW C
1			
2			
3			
4	DGND	DGND	DGND
5	DT0		DR0
6	TFS0		RFS0
7	SCLK0		SCLK0
8			
9			
10			
11			
12	DGND	DGND	DGND
13			
14			
15			
16	DGND	DGND	DGND
17			
18			
19			
20	DGND	DGND	DGND
21	AGND	AGND	AGND
22	AGND	AGND	AGND
23	AGND	AGND	AGND
24	AGND	AGND	AGND
25	AGND	AGND	AGND
26	AGND	AGND	AGND
27		AGND	
28		AGND	
29	AGND	AGND	AGND
30	-12 V	AGND	+12 V
31			
32	AVDD	AVDD	AVDD

¹ The unused pins of the 96-way connector are not shown.

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SOCKETS

There are 13 input/output sockets relevant to the operation of the AD7912/AD7922 on this evaluation board. The functions of these sockets are outlined in Table 5.

Table 5. Socket Functions

Socket	Function
J1	96-way connector used to interface to the EVAL-CONTROL-BRD2.
J2	External +12 V, -12 V, and AGND power connector.
J3	External V _{DD} and AGND power connector.
J4	Subminiature BNC socket for Analog Input Channel 0, VIN0.
J5	Subminiature BNC socket for Analog Input Channel 1, VIN1.
J6	Subminiature BNC socket for external SCLK.
J7	Subminiature BNC socket for external DIN.
J8	Subminiature BNC socket for DOUT signal.
J9	Subminiature BNC socket for external \overline{CS} .
J10	Subminiature BNC socket for bipolar input signal to bias-up circuit, AIN1.
J11	Subminiature BNC socket for bipolar input signal to bias-up circuit, AIN.
J12	Subminiature BNC socket for output from bias-up circuit, VBIASED1.
J13	Subminiature BNC socket for output from bias-up circuit, VBIASED.

OPERATING WITH THE EVAL-CONTROL-BRD2

The evaluation board can be operated in a standalone mode or in conjunction with the EVAL-CONTROL-BRD2, which is available from Analog Devices. When operated with this control board, all supplies and control signals to operate the AD7912/AD7922 are provided by the EVAL-CONTROL-BRD2.

Software to communicate with the control board and AD7912/AD7922 is provided with the AD7912/AD7922 evaluation board package. This EVAL-CONTROL-BRD2 will also operate with all Analog Devices evaluation boards that end with the letters CB in their part number.

The 96-way connector on the EVAL-AD7912/AD7922 plugs directly into the 96-way connector on the EVAL-CONTROL-BRD2. The EVAL-CONTROL-BRD2 provides all the supplies for the AD7912/AD7922 evaluation board. It is powered from a 12 V ac transformer. This is a standard 12 V ac transformer capable of supplying 1 A current; it is available as an accessory from Analog Devices under the following part numbers:

EVAL-110VAC-US: for use in the U.S. or Japan

EVAL-220VAC-UK: for use in the U.K.

EVAL-220VAC-EU: for use in Europe

These transformers are also available from other suppliers, including Digi-Key Corporation (U.S.) and Campbell Collins (U.K.). Connection between the EVAL-CONTROL-BRD2 and the serial port of a PC is via a standard printer port cable provided as part of the EVAL-CONTROL-BRD2 package. Refer to the manual accompanying the EVAL-CONTROL-BRD2 for more details on the EVAL-CONTROL-BRD2 package. Figure 3 shows the complete ADC evaluation tools kit.

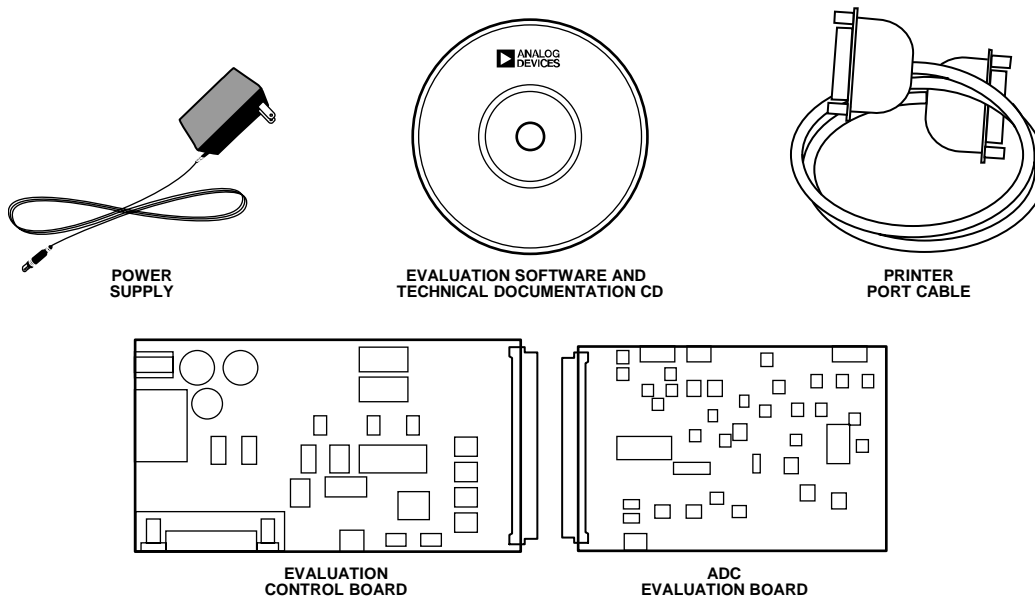


Figure 3. ADC Evaluation Tools Kit

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EVALUATION BOARD SOFTWARE

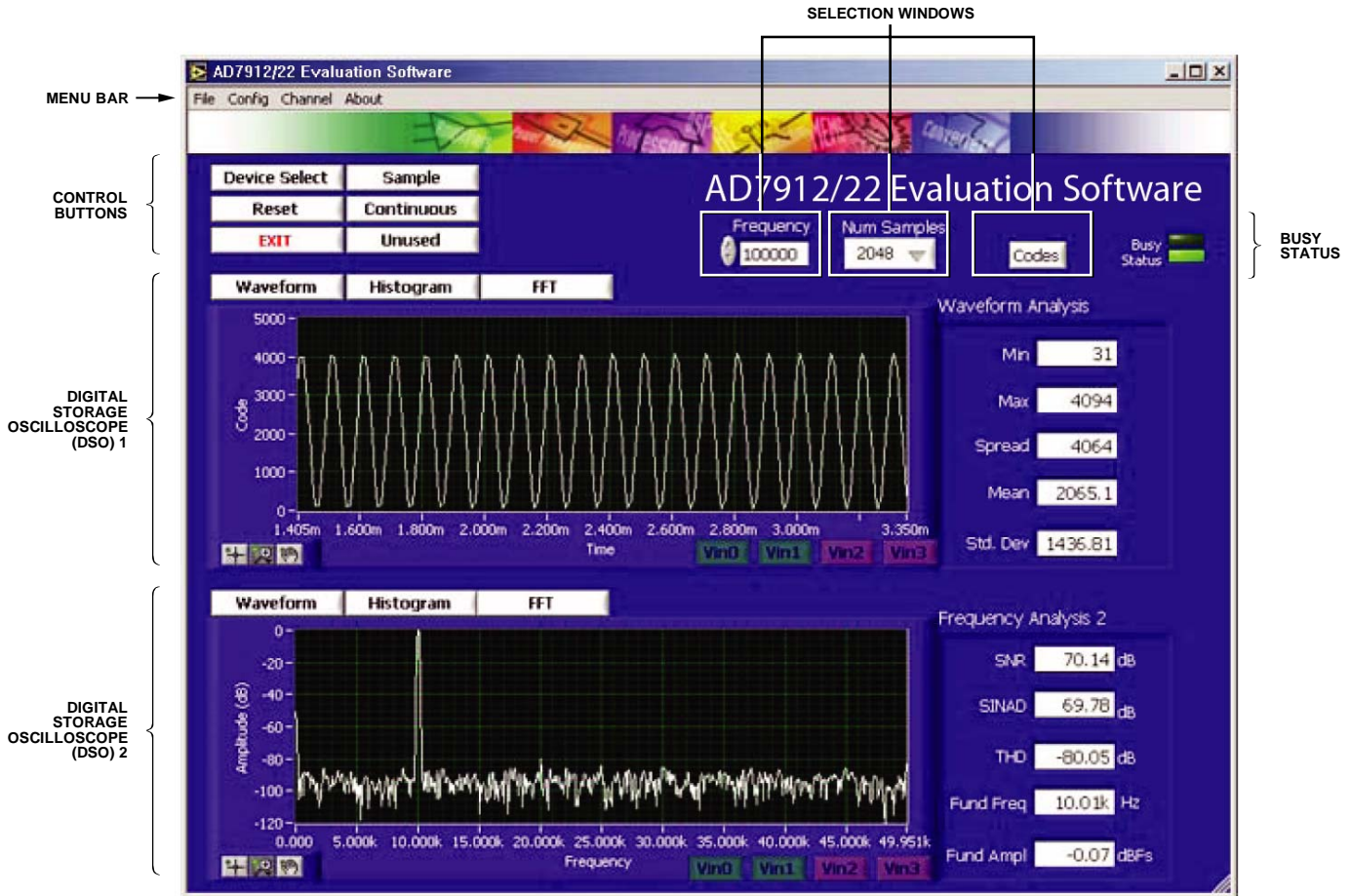


Figure 4. AD7912/AD7922 Main Dialog Box

SOFTWARE DESCRIPTION

Included in the EVAL-AD7912/AD7922 evaluation board package is a CD-ROM that contains software for controlling and evaluating the performance of the AD7912/AD7922 when it is operated with the EVAL-CONTROL-BRD2. When the CD is inserted into the PC, an installation program automatically begins. This program installs the evaluation software, the data sheet for the AD7912/AD7922 evaluation board, and the data sheet for the AD7912/AD7922 onto the user's machine. All literature on the CD is in Adobe's Portable Documentation format (PDF) and requires Acrobat Reader™ to be viewed or printed. The user interface on the PC is a dedicated program written especially for the AD7912/AD7922.

The software that controls the EVAL-CONTROL-BRD2, and hence the AD7912/AD7922 evaluation board, has three main dialog boxes. The box shown in Figure 4 appears when the software is run. The primary function of the box is to allow the user to read a predetermined number of samples from the evaluation board and display them in both the time and frequency domain. The box can be divided into three sections. The upper most section of the box contains the control buttons, the menu bar, and the status windows. The control buttons allow the

user to take samples, reset the part, and quit the program. There are also power-down and power-up options in the control buttons. These buttons allow the user to place the part into power-down mode, and then to power up the part again (see the AD7912/AD7922 data sheet for more information). The menu bar allows the user to enter the setup menu, select which printer port is to be used to control the EVAL-CONTROL-BRD2, load and save data, obtain information about the software, and so on. The status window indicates the setup of the evaluation board/device, number of samples taken, channel selected, and any information/error messages that are generated.

The middle section of the AD7912/AD7922 main dialog box is a digital storage oscilloscope (DSO). When samples are uploaded from the EVAL-CONTROL-BRD2, they are displayed here. The samples can be displayed either as integer values or as voltages. Once the samples are displayed, clicking any point on the graph will display the sample number and the value of the point directly beneath the cursor. Along the axis of the graph are the "zoom handles." These allow the user to zoom in and out to get a closer look at a particular sample if required. When another set of samples are taken, the graph will attempt to display all values collected unless **Hold Zoom** is selected. If the **Hold Zoom** box is selected,

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the graph will keep the same axis settings as for the previous set of data samples. There are additional checkboxes in this section to allow the user to control the vertical and horizontal grids and data points.

The lowest section of the box will show either a fast Fourier transform (FFT) of the data or a histogram showing the number of occurrences of each particular code read back. The FFT (the default option) is typically used when the user is concerned with examining an ADC's performance in the frequency domain, whereas the histogram gives an indication of the ADC's performance in terms of dc signals. The option displayed can be changed by clicking **FFT Mode/Histogram Mode** in the upper right of the box.

Setup Menu

The **Setup Menu** dialog box allows the user to load the required configuration file, the ad7912.cfg or the ad7922.cfg, for the evaluation board. The configuration file provides the software with detailed information about the AD7912/AD7922 evaluation board and the part connected to the EVAL-CONTROL-BRD2. For example, it provides information about the number of bits, maximum sampling rate, output coding, maximum analog input, power supply requirements, and so on. The configuration file also tells the software the name of the DSP program file to download to the EVAL-CONTROL-BRD2. These files are supplied by Analog Devices with the evaluation board.

The **Setup Menu** dialog box allows the user to select the number of samples required, the sampling frequency, and the channel to be converted on (Channel 0 for VIN0 and Channel 1 for VIN1). Figure 5 shows the **Setup Menu** dialog box.

SETTING UP EVAL-CONTROL-BRD2

The following text describes how the evaluation board, EVAL-CONTROL-BRD2, and software should be set up for the user to

begin using the complete system. The EVAL-CONTROL-BRD2 and evaluation board should be connected together (via the 96-way connector). The power should be applied to the EVAL-CONTROL-BRD2. At this stage, the red LED should be flashing, which indicates that the EVAL-CONTROL-BRD2 is functional and ready to receive instructions. The software should be loaded before the printer port cable is connected between the EVAL-CONTROL-BRD2 and the PC. This ensures that the printer port has been initialized properly. The printer port cable can then be connected between the PC and EVAL-CONTROL-BRD2.

Running the Software

With the hardware set up, the user can use the software to control the EVAL-CONTROL-BRD2 and the evaluation board.

In the software the user should select the **File** menu and click **Setup**. This displays the setup form. A window on the left of the setup form lists all the available configuration files. The configuration files are text-based files containing information about the particular evaluation board to be tested. The information includes the part name, number of samples to be taken, default and maximum sampling frequency, power supply settings, and so on. The configuration file also contains the name of the DSP program file, which is to be downloaded to the EVAL-CONTROL-BRD2.

The user should select the relevant configuration file and click **Load**. The EVAL-CONTROL-BRD2 will be reset and the DSP program will be downloaded. When the download has been completed, the power supply settings indicated in the configuration file are set and the user may hear some of the relays clicking. The pull-down menu items such as **Select No. Of Samples** and **Select Sample Frequency** will have been set to the default values specified by the configuration file. The user is free to change these at will and should select the channel to be converted on as well. Once all the settings have been decided, the user can click **Close** to return to the main setup form.

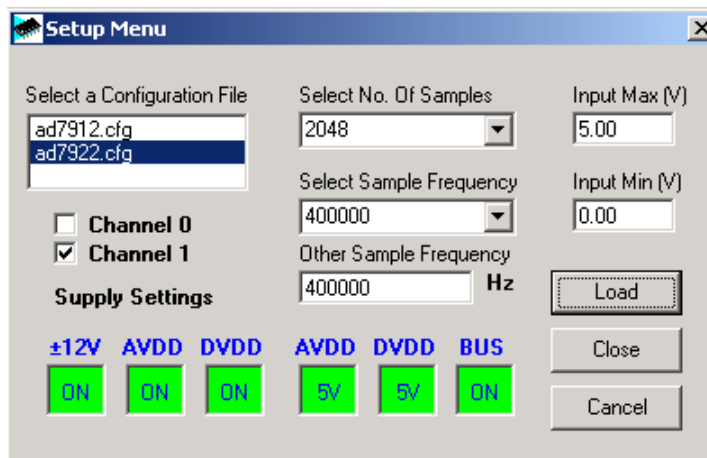


Figure 5. Setup Menu Dialog Box

Taking Samples

When the user clicks **Sample**, the software instructs the EVAL-CONTROL-BRD2 to take the required number of samples at the required frequency from the evaluation board. The AD7912/AD7922 evaluation board runs up to 1 MSPS. Therefore, the user can choose the sampling frequency up to this rate and can also choose the number of samples to be taken. These samples are then uploaded and displayed. An FFT and histogram are also calculated and displayed. If the user clicks **Continuous**, the software repeats the process indefinitely until the user clicks **Stop** (the **Sample** button becomes the **Stop** button when Continuous is selected). While the software is continuously sampling data, the other control buttons are disabled.

Other Buttons

Clicking **Reset** causes the EVAL-CONTROL-BRD2 to perform a reset function. When this happens, the power supplies are turned off and the program in DSP memory is lost. The user should repeat the setup instructions to download another program if required.

Clicking **Quit** exits the software, but the program running on the EVAL-CONTROL-BRD2 is not terminated.

MENU BAR ITEMS

The main dialog box of the EVAL-CONTROL-BRD2 contains a number of options available as pull-down menu items. The functions of these are listed as follows.

File Menu

Setup Menu

Selecting this option displays the **Setup Menu** dialog box (shown in Figure 5).

Load Raw Data

Selecting this option allows the user to load data that had been saved by the software during a previous session.

Save Raw Data

Selecting this option allows the user to save the current set of sample data points. The data can be reloaded to the EVAL-CONTROL-BRD2 software later or can be used by other programs for further analysis.

Save Binary Data

Selecting this option allows the user to save the current set of sample data points. The data is saved in binary format as a text file. This method can be useful for examining code flicker, looking for stuck bits, and so on.

Save FFT Data

Selecting this option allows the user to save the current set of FFT data points. FFT data cannot be reloaded into the EVAL-CONTROL-BRD2 software but can be loaded into other software packages for further analysis.

Exit

Quits the program.

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Printer Port

This menu item allows the user to select which printer port should be used for communication with the EVAL-CONTROL-BRD2.

LPT1

This option selects 0x378 as the printer port address. This is the default option.

LPT2

This option selects 0x278 as the printer port address.

PRN

This option selects 0x3BC as the printer port address.

Help

This menu item provides information about the current version of software for the particular evaluation board being used.

SOFTWARE CONFIGURATION FILES

Software configuration files provide the EVAL-CONTROL-BRD2 software with information on how the software and hardware should perform. They contain information such as the name of the DSP program to download, the default and maximum sample frequencies, the number of samples to take, and the power supply settings to use. A typical software configuration file (*.cfg) is shown in Listing 1.

Listing 1

```
[EVAL-CONTROL-BRD2]
partname:AD7922
programname:ad7922.PRG

samplefrequency:100000
maxsamplefrequency:1000000
samples:2048

+/-15V:on
dvdd:5:on
avdd:5:on
bus:on
;options 2scomp, binary
dataformat:binary
numberofbits:12
inputVmax:5
inputVmin:0
[endofconfig]
```

EVALUATION BOARD SCHEMATICS AND ARTWORK

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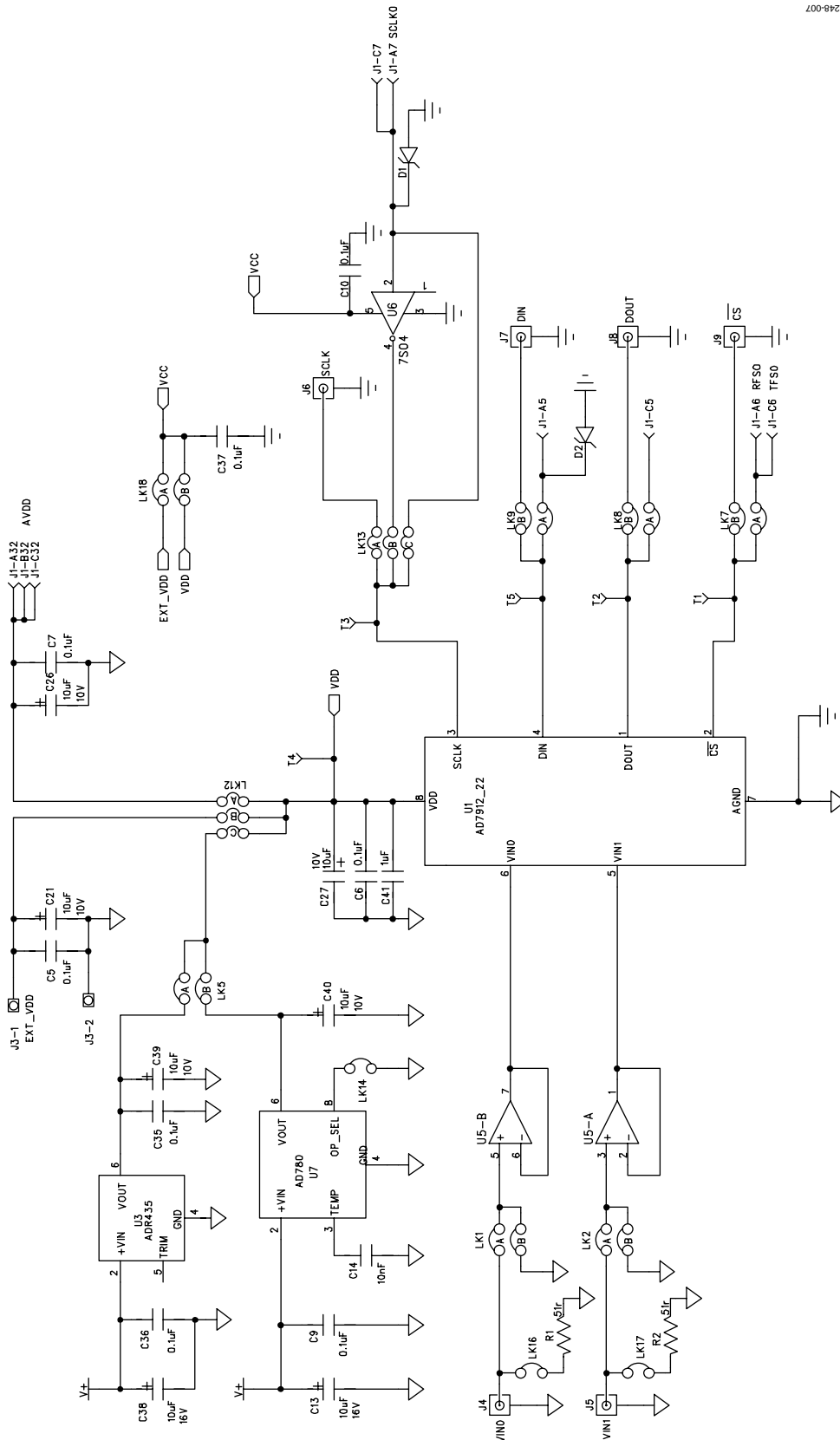


Figure 6. AD7912/AD7922 Evaluation Board Circuit Diagram I

EVAL-AD7912/AD7922

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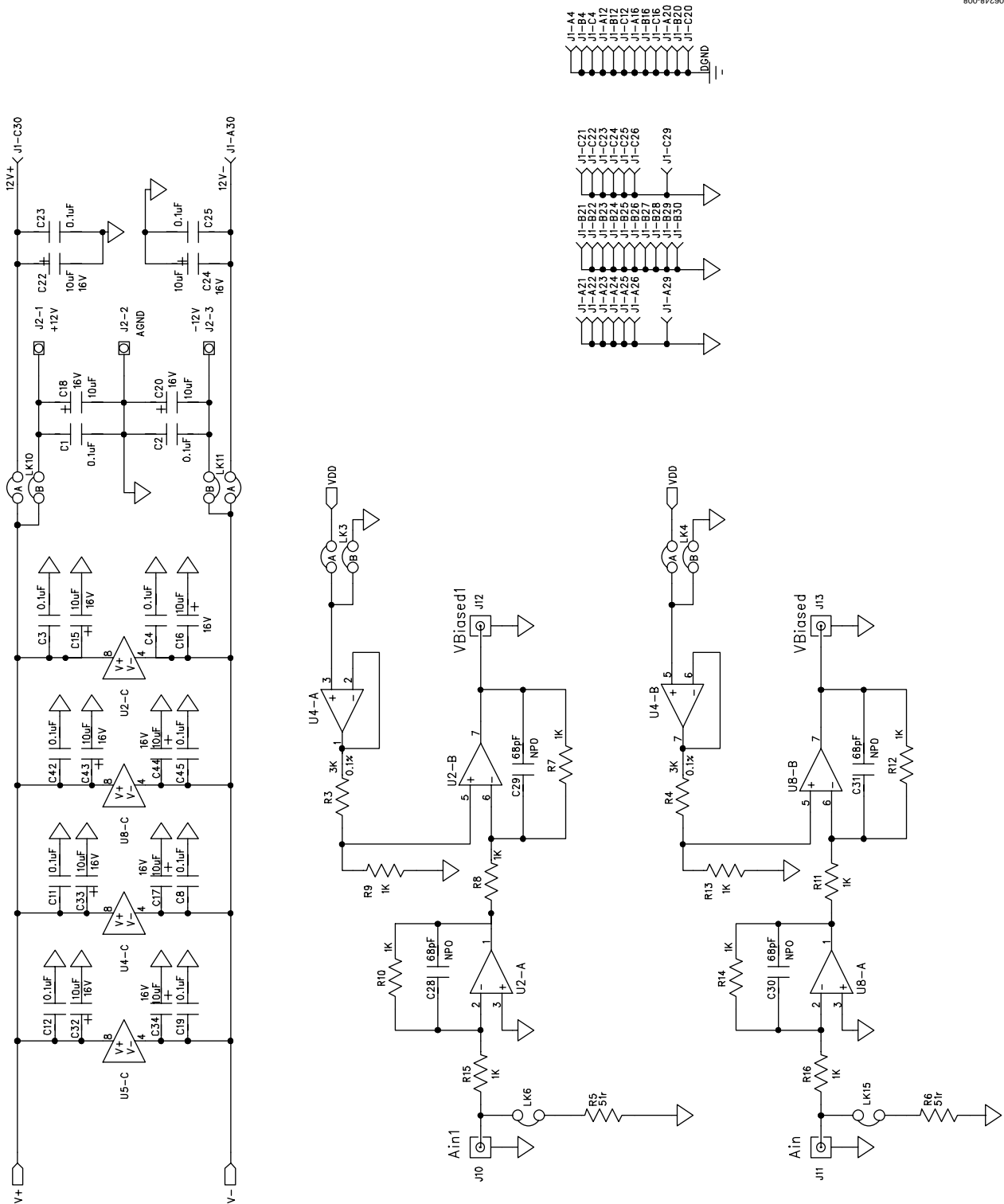
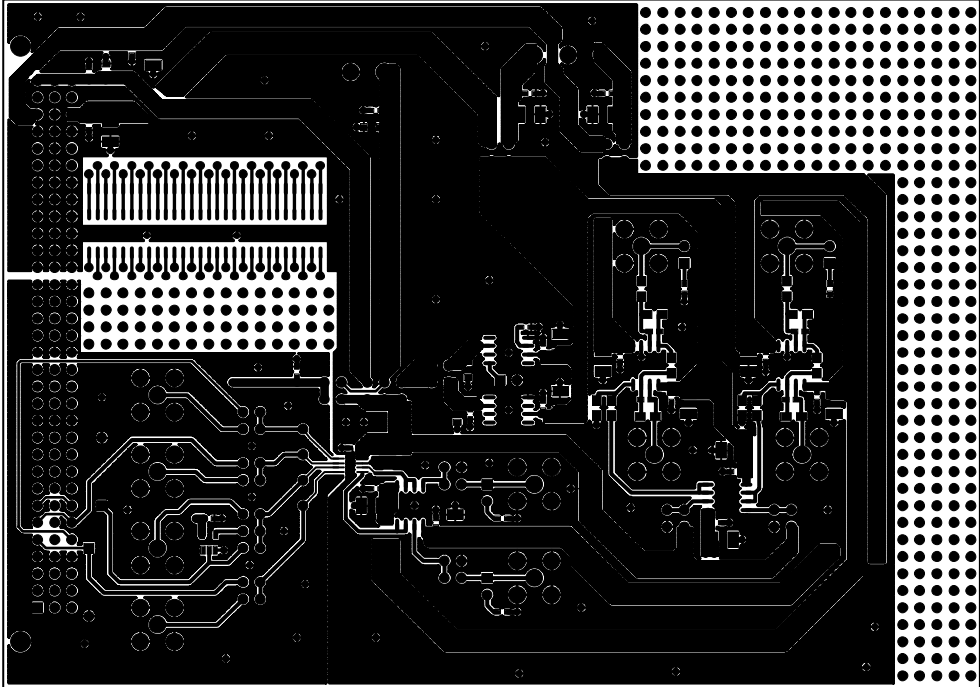
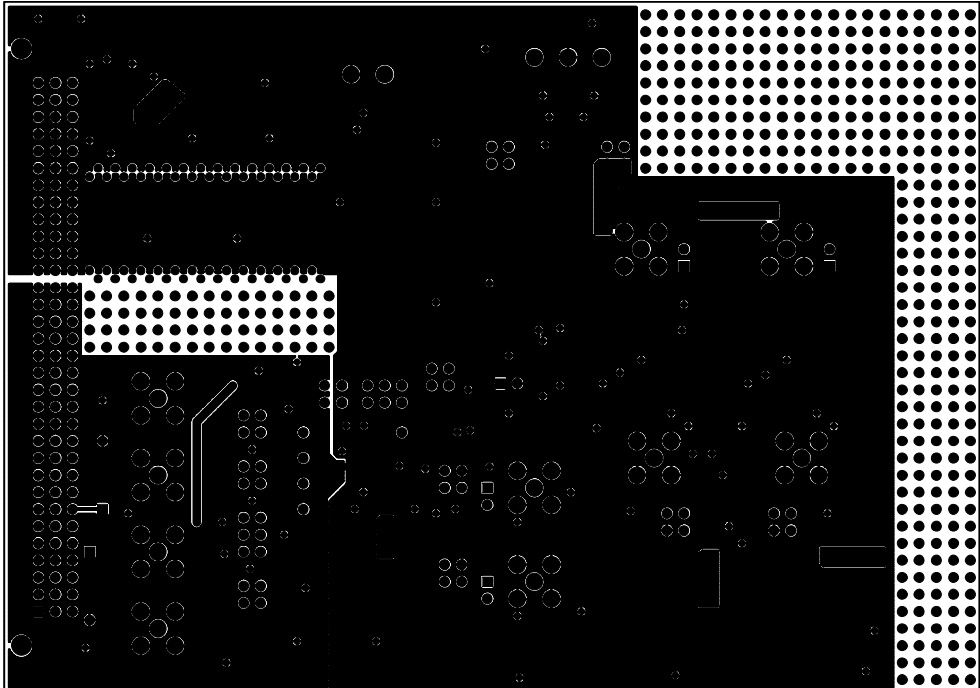


Figure 7. AD7912/AD7922 Evaluation Board Circuit Diagram II



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Figure 8. Component Side Artwork



06248-010

Figure 9. Solder Side Artwork

EVAL-AD7912/AD7922

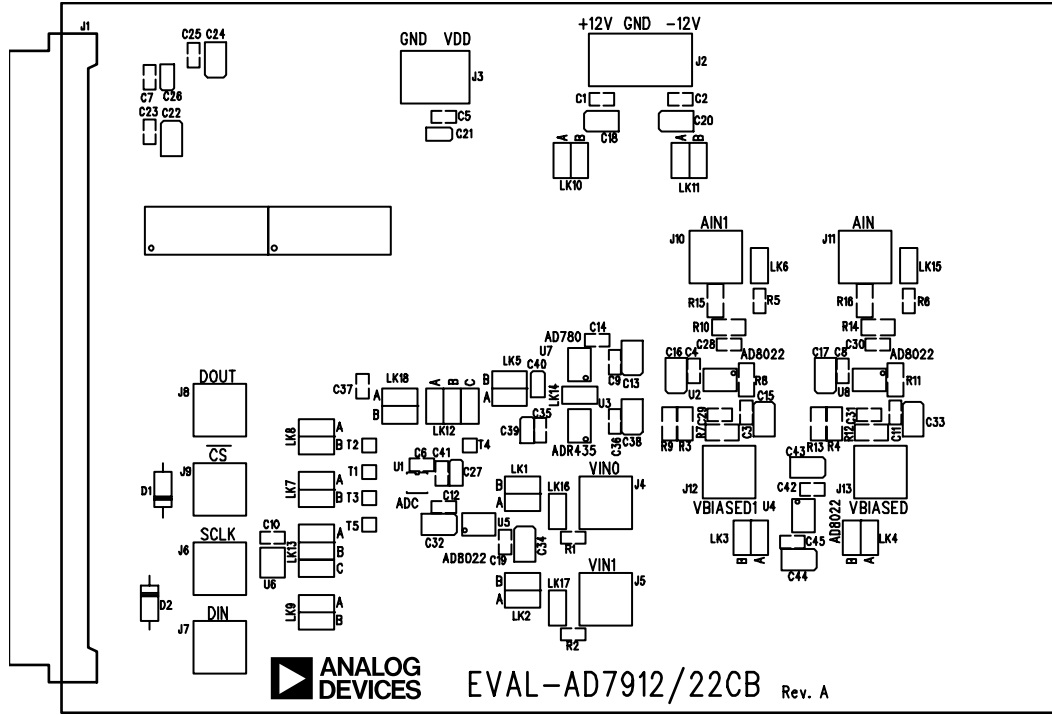


Figure 10. AD7912/AD7922 Evaluation Board Component Placement Drawing

06248-011

ORDERING INFORMATION

BILL OF MATERIALS

Table 6. Component Listing

Qty	Reference Designator	Description	Manufacturer	Supplier/Number
1	U1	AD7912/AD7922	Analog Devices	AD7912ARM/AD7922ARM
4	U2, U4, U5, U8	AD8022	Analog Devices	AD8022AR
1	U3	ADR435	Analog Devices	ADR435AR
1	U6	7504		FEC 685-914
1	U7	AD780	Analog Devices	AD780AR
10	R7 to R16	1 kΩ, 0.1 W, 0.1 %		FEC 554-005
2	R3, R4	3 kΩ, 0.1 W, 1 %		FEC 321-8119
4	R1, R2, R5, R6	51 Ω, 0.063 W, 1 %		FEC 357-1245
21	C1 to C12, C19, C23, C25, C35 to C37, C42, C45	0.1 μF, 16 V, X7R ceramic		FEC 432-210
14	C13, C15 to C18, C20, C22, C24, C32 to C34, C38, C43, C44	10 μF, 16 V, tantalum		FEC 498-737
5	C21, C26, C27, C39, C40	10 μF, 10 V, tantalum		FEC 197-130
1	C14	10 nF, 16 V, tantalum		FEC 432-210
4	C28 to C31	68 pF, 50 V, NPO ceramic		FEC 722-066
1	C41	1 μF, 10 V, Y5V, ceramic		FEC 318-8840
2	D1, D2	SD103C Schottky diode		SD103C
1	J1	96-way 90° DIN41612 plug		FEC 104-986
1	J2	3-pin power connector		FEC 151-786
1	J3	2-pin power connector		FEC 151-785
10	J4 to J13	50 W gold-plated SMB		FEC 310-682
5	LK6, LK14 to LK17	Jumper		FEC 148-535 and 150-411
11	LK1 to LK5, LK7 to LK11, LK18	2-way jumper (2 × 1)		FEC 148-535 and 150-411
2	LK12, LK13	3-way jumper (2 × 3)		FEC 148-535 and 150-411
5	T1, T2, T3, T4, T5	Test point		FEC 240-333

ORDERING GUIDE

Model	Description
EVAL-AD7912CBZ ¹	AD7912 Evaluation Board
EVAL-AD7922CBZ ¹	AD7922 Evaluation Board

¹ Z = RoHS Compliant Part.

ESD CAUTION



ESD (electrostatic discharge) sensitive device. Charged devices and circuit boards can discharge without detection. Although this product features patented or proprietary protection circuitry, damage may occur on devices subjected to high energy ESD. Therefore, proper ESD precautions should be taken to avoid performance degradation or loss of functionality.

EVAL-AD7912/AD7922

NOTES