User manual of ADC 24-Bit Board

Introduction:

ADC board is a precision 24-bit analog-to-digital converter it includes ADS1220 chip which can take four analog input signals and the simple control of the ADS1220 through an SPI-compatible interface ease precision measurements of the most common sensor signals. Board uses Industry-Standard communication for SPI protocol and only use 3.3V power supply.

Features:

1. Low Current Consumption
2. SPI-Compatible Interface
3. Low-Noise
4. Two Differential or Four Single-Ended Inputs

Applications:

1. Temperature Sensors
    - Thermocouples
    - Resistance Temperature Detectors
2. Bridge Sensors
3. Factory Automation and Process Control

How to use:

Before using this board, make sure to give proper supply & Input without any short circuit. Once you connected all signals without any wrong connections, we can able to use the ADC board.

1x10 RMC Details:

J1 Pin RMC CONNECTOR (Analog Inputs) Details:

Pin No	Signal Name	Description
1	Analog I/P1	ANALOG INPUT 1
2	GND	Analog GND
3	Analog I/P2	ANALOG INPUT 2
4	GND	Analog GND
5	Analog I/P3	ANALOG INPUT 3
6	GND	Analog GND
7	Analog I/P4	ANALOG INPUT 4
8	GND	Analog GND
9	GND	POWER GND
10	+3.3V	POWER SUPPLY

J2 Pin BERG (SPI Interface) Details:

Pin No	Signal Name	Description
1	NC	NC
2	SCLK	SPI_ Serial clock input
3	CS	SPI_chip select
4	DIN	SPI_ Serial data input
5	DOUT	SPI_ Serial data output
6	DRDY	SPI_ Data ready

Default Jumper Settings for ADC Device:

Sl, No.	Connector Name	Default Jumper pin number
1	JP1	1 & 2 (To select a clock)
2	JP2	1 & 2 (To give +ve reference)
3	JP3	1 & 2 (To give ADC supply)
4	JP4	2 & 3 (To give -ve reference)