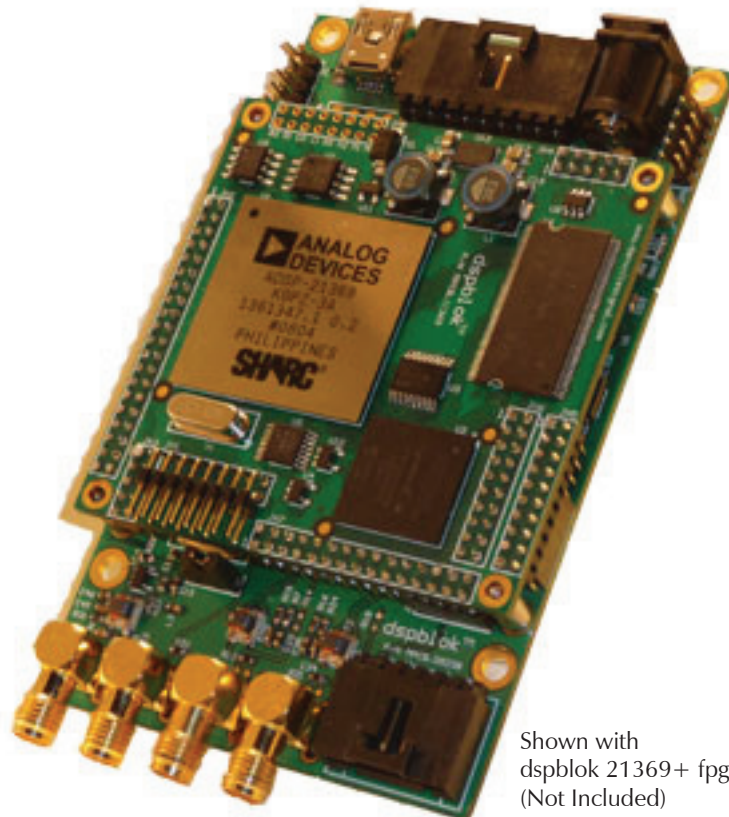


## dspblok™ a9248

- **Dual 50 Ohm Inputs**  
(SMA Connectors)
- **Up to 65M/s Sample Rate**
- **SPI Expansion Interface**
- **External Trigger**
- **Simultaneous Sampling**  
**of Both Channels**
- **On-Board Programmable**  
**Clock and External Clock Input**
- **Fast Sample and Hold**  
**Suitable for Undersampling**  
**Applications**



Shown with  
dspblok 21369+ fpga  
(Not Included)

The dspblok a9248 high speed I/O module is a two-channel ADC based on an Analog Devices' AD9248-65 14 bit A/D converter. The board is designed to interface with Danville Signal's dspblok 21369zx using the PDAP interface or dspblok 21369+fpga DSP Modules.

The internal clock is based on a Texas Instruments' CDCE706 programmable clock. The frequency can be changed via software control using the DSP's I2C interface. The external trigger synchronizes to the sample clock so that the A & B channels are always correctly aligned in two-channel mode.

Each channel has overload indication. Data may be either two's complement or offset binary format. In single channel mode, either the A or B channel may be selected. In dual channel mode, each channel is sampled simultaneously, with the same clock. This is particularly important for I/Q applications.



## Product Variations:

dspblok a9248 - (Transformer Inputs, RS-232, USB Mini B, 9 pin I/O header)	P/N A.09248A-1
dspblok a9248 - (Transformer Inputs, RS-232, 4 pin USB header, 9 pin I/O header)	P/N A.09248A-1-4/9
dspblok a9248 - (Transformer Inputs, RS-232, 14 pin I/O header)	P/N A.09248A-1-14
dspblok a9248 - (Transformer Inputs, RS-232, USB Mini B only)	P/N A.09248A-1-NC
dspblok a9248 - (Transformer Inputs, RS-232, USB Mini B, Harwin I/O headers)	P/N A.09248A-1-HW
dspblok a9248 - (Amplifier Inputs, RS-232, USB Mini B, 9 pin I/O header)	P/N A.09248A-2
dspblok a9248 - (Amplifier Inputs, RS-232, 4 pin USB header, 9 pin I/O header)	P/N A.09248A-2-4/9
dspblok a9248 - (Amplifier Inputs, RS-232, 14 pin I/O header)	P/N A.09248A-2-14
dspblok a9248 - (Amplifier Inputs, RS-232, USB Mini B only)	P/N A.09248A-2-NC
dspblok a9248 - (Amplifier Inputs, RS-232, USB Mini B, Harwin I/O headers)	P/N A.09248A-2-HW

## Key Components:

Analog Devices AD9248BSTZ-65  
Analog Devices AD8138 (Amplifier Input Option)  
Texas Instruments CDCE706 Programmable Clock  
Harwin M80-5101042 & M80-5101442 (HW Option)

## Inputs:

Inputs: 50 ohm SMA  
External Clock: 50 ohm SMA  
External Trigger: 50 ohm SMA

## Maximum Sample Rates:

65 M/s single or dual channels when using dspblok 21369+fpga  
50 M/s single channel when using dspblok 21369zx (PDAP)  
25 M/s dual channels, when using dspblok 21369zx (PDAP)

## I/O:

SPI: Master Mode, SCK, MISO, MOSI, SS1, SS2  
UART: RS-232  
USB: USB 2.0, Full Speed

## Physical Parameters:

Operating Temperature: -40 to +85 C  
Size: 60mm x 100mm x 15mm  
Power Requirements: 5.0 VDC +/- 10% - 500mA when using dspblok 21369zx



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