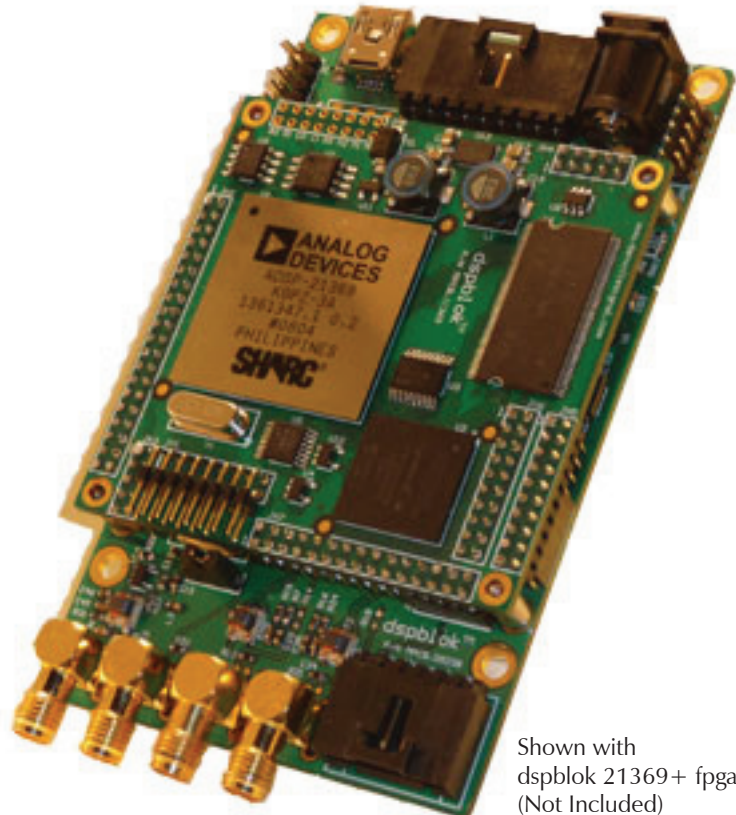


dspblok™ a9238

- **Dual 50 Ohm Inputs**
(SMA Connectors)
- **Up to 40M/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 a9238 high speed I/O module is a two-channel ADC based on an Analog Devices' AD9238-40 12 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 a9238 - (Transformer Inputs, RS-232, USB Mini B, 9 pin I/O header)	P/N A.09238A-1
dspblok a9238 - (Transformer Inputs, RS-232, 4 pin USB header, 9 pin I/O header)	P/N A.09238A-1-4/9
dspblok a9238 - (Transformer Inputs, RS-232, 14 pin I/O header)	P/N A.09238A-1-14
dspblok a9238 - (Transformer Inputs, RS-232, USB Mini B only)	P/N A.09238A-1-NC
dspblok a9238 - (Transformer Inputs, RS-232, USB Mini B, Harwin I/O headers)	P/N A.09238A-1-HW
dspblok a9238 - (Amplifier Inputs, RS-232, USB Mini B, 9 pin I/O header)	P/N A.09238A-2
dspblok a9238 - (Amplifier Inputs, RS-232, 4 pin USB header, 9 pin I/O header)	P/N A.09238A-2-4/9
dspblok a9238 - (Amplifier Inputs, RS-232, 14 pin I/O header)	P/N A.09238A-2-14
dspblok a9238 - (Amplifier Inputs, RS-232, USB Mini B only)	P/N A.09238A-2-NC
dspblok a9238 - (Amplifier Inputs, RS-232, USB Mini B, Harwin I/O headers)	P/N A.09238A-2-HW

Key Components:

Analog Devices AD9238BSTZ-40
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:

40 M/s single or dual channels when using dspblok 21369+fpga
40 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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