

ALI42

ALI42 G2: 2 Channel High Speed Bridge and Voltage Input Amplifier



G2

The ALI42 G2 Module is a 2 channel high speed Module with sample rates up to 819.2 kSa/s and a bandwidth of 350 kHz. Both channels operate independently of each other, each with its own mode, gain, coupling, etc and with all settings done in software. The ALI42 G2 has two 7-pin Lemo connectors and can be used for both high bandwidth analog input as well as full bridge measurement applications.

Where used:

- With any voltage source up to ± 10 V
- With any pressure transducer, load cell, strain gauge and other bridge based sensors

ALI42 G2 features:

- 2 channels
- Operation modes include:
 - Analog input (ALI) mode
 - Bridge voltage-excitation mode:
 - 0-6 V (DC) for $>120 \Omega$ full bridges
 - 0-4 V (DC) for 120Ω full bridges
 - 8-10 V (DC) for $1 \text{ k}\Omega$ full bridges
 - Supports TEDS IEEE 1451.4 V0.9, V1.0 (Class 1 & 2)
- 24-bit resolution
- 819.2 kSa/s sampling rate for 1 channel, 350 kHz bandwidth
- 409.6 kSa/s sampling rate for 2 channels, 175 kHz bandwidth
- $<0.05^\circ$ @ 10 kHz phase accuracy between channels of the same Module type and $<0.6^\circ$ of another Module type
- $\pm(10 \text{ V}, 1 \text{ V}, 100 \text{ mV})$ input ranges for all modes
- Input resistance: $2 \text{ M}\Omega$
- Input capacitance: $<100 \text{ pF}$
- DC or AC coupling
- Balanced differential signal input
- Sensors and bridges providing a full bridge are supported
 - Local and Remote Sense options
 - $100 \text{ k}\Omega$ internal shunt calibration resistor
 - Differential voltage-excitation output and balanced sense input
- Pre and post filter overflow monitoring
- Selectable low and high pass digital filters
- Lemo 7-way EHG.0B connectors

ALI42B

ALI42B G2: 2 Channel High Speed Voltage Input Amplifier



G2

The ALI42B G2 Module is a 2 channel high speed Module with sample rates up to 819.2 kSa/s and a bandwidth of 350 kHz. Both channels operate independently of each other, each with its own mode, gain, coupling, etc and with all settings done in software. The ALI42B G2 has two BNC connectors and is specifically targeted to high bandwidth analog input applications requiring terminated or unterminated inputs.

Where used:

- With any voltage source up to ± 10 V
- Signal sources requiring 50Ω termination
- Signal sources requiring high input resistance

ALI42B G2 features:

- 2 channels
- Operation modes include:
 - Analog input (ALI) mode, terminated with 50Ω
 - Analog input (ALI) mode, unterminated
- 24-bit resolution
- 819.2 kSa/s sampling rate for 1 channel, 350 kHz bandwidth
- 409.6 kSa/s sampling rate for 2 channels, 175 kHz bandwidth
- $<0.05^\circ$ @ 10 kHz phase accuracy between channels of the same Module type and $<0.6^\circ$ of another Module type
- $\pm(10 \text{ V}, 1 \text{ V}, 100 \text{ mV})$ input ranges for all modes
- Input resistance: Software switchable between 50Ω or $2 \text{ M}\Omega$
- Input capacitance: $<100 \text{ pF}$
- DC or AC coupling
- Balanced differential signal input
- Pre and post filter overflow monitoring
- Selectable low and high pass digital filters
- 50Ω BNC connectors

TIER 1 SUBMODULES AND ACCESSORIES

PERSONALIZING SYSTEMS

SubModules

A SubModule is sometimes required to provide a special interface to an individual sensor. SubModules are thus used to personalize a Module as the final interface to a sensor or provide features like cold junction temperature sensing.

MiniTerminal

The MT12 MiniTerminal provides a large, bright LED display as a practical solution to show test information as well as to receive commands from a user such as start or stop. It connects to any one of the System Controller and Power Supply boards found in any Mainframe.

Rack Mounted System Accessories

The RM04, RM06 and RM10 RackMounts are compact, machined aluminum Rack Mounting Kits which house 4, 6 and 10-slot PAK MKII Mainframes in 19 inch racks. The Mainframe has specifically been recessed in each Mounting Kit to ensure that all cables are contained behind the rack's front face. These cables can then be routed to the left and right sides of the Mainframe. At the rear, a horizontal brace provides a mounting point for cable connector flanges should this be required.

Mobile System Accessories

The SF10 SeatFrame optimally secures a 2, 3, 4 or 6-slot Mainframe and notebook onto a car seat for mobile measurements. It consists of machined aluminum members which can be adjusted to optimally fit the seat, Mainframe and notebook. To prevent sideways movement, the side and rear sleds can be adjusted to best hug the seat. The rear SeatFrame handle can also be adjusted to push against the seat's backrest to prevent it flipping over. It is strapped to the seat using the safety belt. A notebook is placed on an adjustable base mounted above the PAK MKII which can fit most notebook sizes.



PDF AVAILABLE

Accessories Brochure

Please refer to the Accessories Brochure for more information on these and other SubModules and Accessories.

