

NXI-6110-8 High-accuracy Analog Input Module



Product Introduction

The NXI-6110-8 is a high-accuracy data acquisition module with 8 channels. It can collect analog signals up to $\pm 60V$ at 100KS/s with 0.2mV accuracy. When used with external DC high voltage dividers and current sensors, it can collect signals up to 2kV and $\pm 1000A$ for DC power measurement. Its wide measurement range, high sampling rate, and strong integration and scalability make it suitable for high-voltage battery pack testing, photovoltaic inverters, HIL testing systems, etc.

Application Fields



High Voltage Battery Pack Testing



PV Inverter Testing



HIL Testing System



Integrated Testing Systems

Main Features

- ▶ Range: $\pm 60V$, $\pm 10V$, $\pm 6V$, $\pm 1V$, $\pm 200mV$
- ▶ 8 isolated analog input channels
- ▶ Up to 100KS/s per channel
- ▶ Compatible with DC high-voltage dividers and current sensors (optional)
- ▶ Max. measurable voltage: 2000V; Max. measurable current: $\pm 1000A$
- ▶ High isolation voltage: DC 1500 V (CAT II) between output and ground
- ▶ Trigger function for multi-channel synchronous collection
- ▶ Compatible with the NXI data acquisition and measurement system
- ▶ Internal/external clock source selectable
- ▶ Acquisition memory capacity: 4MB*8
- ▶ Single module with single slot, applicable to NXI-F1000 chassis or independent use
- ▶ Support 12V DC power supply, LAN/CAN communication for individual control
- ▶ Support Modbus-RTU, SCPI, CANopen protocols

Technical Data Sheet

Model	NXI-6110-8				
DCLV Input					
Channels	8CH				
Max. Range	±64V				
Total Sampling Rate	Up to 800KS/s				
Sampling Rate for Single Channel	100KS/s				
Range	±60V	±10V	±6V	±1V	±200mV
Resolution	0.1mV	0.1mV	0.1mV	0.1mV	10μV
Gain Temperature Coefficient	30ppm/°C				
Accuracy (25±5°C) @1KS/s	±20mV	±2mV	±1mV	±0.5mV	±0.2mV
Input Impedance	> 1MΩ	> 100MΩ			
DCHV Input					
Implementation	Any of channel NXI-6110-8 (±1V range) + DC high voltage divider NXI-6110-DV				
Measurement Range	0~2000V				
Measurement Accuracy @1KS/s	Channel accuracy + DC high voltage divider accuracy (0.05%)				
Sampling Rate	Up to 100KS/s				
DC Current Input					
Implementation	Any channel of NXI-6110-8 (±10V range) + current sensor				
Measurement Range	-20A~+20A	-50A~+50A	-200A~+200A	-500A~+500A	-1000A~+1000A
Measurement Accuracy @1KS/s	0.1%+0.1%F.S. (including current sensor)		0.05%+0.01%F.S.(including current sensor)		
Sampling Rate	Up to 100KS/s				
DC Power Measurement					
Implementation	DC power measurement = DC high voltage measurement* DC current measurement				
Measurement Range	0~2MW				
Measurement Accuracy @1KS/s	DC high voltage measurement accuracy + DC current measurement accuracy				
Sampling Rate	Up to 100KS/s				
Others					
Test Terminal	SMB terminal				
Isolated Voltage(channel to channel)	300V DC				
Isolated Voltage(channel to ground)	DC 1500V(CAT II) / AC 1000V(CAT II)				
Isolated Voltage(module to module)	DC 1500 V, AC 1000 V				
Data Update Interval	1ms~10s adjustable				
Operating Power	12VDC±10%, < 1A				
Communication Interface	LAN/CAN				
Temperature	Working temperature: 0°C~40°C; Storage temperature: -20°C~60°C				
Operating Environment	Altitude: <2000m; relative humidity: 5%~90% (no condensation); operating air pressure: 80~110kPa				
Net Weight	0.25kg				
Dimensions	130.5mm(H)*20.0mm(W)*230.5mm(D,with puller)				

Note 1: For more and latest information, please contact NGI.

Note 2: For other specifications, please contact NGI.