NXI-6105-16/16 High Speed Data Acquisition Module

Product Introduction

NXI-6105-16/16 is a 16-bit 16-channel high speed data acquisition module with analog input&output and digital IO function. It supports 1MS/s sample rate.NXI-6105-16/16 comes with FIFO snubber, and supports user-defined waveformoutput. It can be widely used in voltage signal acquisition, data processing and analysis in multiple fields and scenarios, such as 3C consumer electronics, industrial control, and research&education.

Application Fields

- Electric Signal Acquisition
- Electronic Controller Testing
- Industrial Controls
- Integrated Test Systems

Main Features

- Analog input: ±10V/±5V/±2.5V/±1.25V/±625mV
- 16 analog input channels can be turned into 8 channels differential inputs
- Support 2 channels analog output, range 0~5V, 0~10V, ±5V, ±10V
- Input/output resolution: 16 bits
- Total input sampling rate: 1MS/s
- 16-channel digital input and output
- 3-channel counter/timer, frequency measurement, PWM output
- Acquisition storage capacity: 8MB
- Support user-defined waveform output with 4M cache capacity
- Single module with single slot, applicable to NXI-F1000 chassis or independent use
- Support 12VDC power supply, LAN communication for individual control
- Support Modbus-RTU, SCPI and CANopen protocols

Technical Data Sheet

Model		NXI-6105-16/16				
Analog Input						
Channels		16CH single-ended/8CH differential/combination				
Resolution		16bit				
FIFO		8M				
Maximum Conversion Rate		Multi-Channel, single gain: 1MS/s	Multi-Channel, Multi-Gain: 600KS/s	Multi-Channel, multi-gain, unipolar/bipolar: 400KS/s		
Range	Single-ended	N/A	0~10V	0~5V	0~2.5V	0~1.25V
	Differential	±10V	±5V	±2.5V	±1.25V	±0.625V
DC Accuracy(23°C±5°C)		0.025%+0.025%F.S.(polling <10kHz)				0.05%+0.05%F.S.
Temperature Coefficient		30ppm/℃				
Normal Voltage		Maximum ±11V (operating)				
Maximum Input Voltage		±12V				
External Analogue Trigger Input Range		-10V~+10V				
Clock Output	Low	Max. 0.4V@16mA(Absorb current)				
	High	Min. 2.4V@-8mA(Output current)				
Trigger Output	Low	Max. 0.4V@16mA(Absorb current)				
	High	Min. 2.4V@-8mA(Output current)				
Analog Output						
Channels		2CH				
Resolution		16bit				
FIFO Capacity		4M				
Output Range		0~+5V, 0~+10V, -5~+5V, -10~+10V				
Accuracy(23°C±5°C)		0.024%+0.024%F.S.				
Slew Rate		15V/μs for FSR				
Temperature Coefficient		25ppm/°C				
Driving Capability		±10mA				
Output Impedance		Max. 0.1Ω				
Steady Time		20μs(up to FSR's ±0.012%)				
External Clock Input	Low	Max.0.8V				
	High	Min. 2.0V				
External Trigger Input	Low	Max. 0.8V				
	High	Min. 2.0V				
Digital Input/Output						
Channels		16CH(Bidirectional)				
Input Voltage	Low	Max. 0.8V				
	High	Min. 2.0V				
Output Voltage	Low	Max. 0.4V@16mA(Absorb current)				
	High	Min. 2.4V@-8mA(Output current)				
Counter						
Channels		3CH				
Reference Clock		10MHz, 1MHz, 100kHz, 10kHz				
Maximum Input Frequency		10MHz				
Clock Input	Low	Max. 0.8V				
	High	Min. 2.0V				
Gate Input	Low	Max. 0.8V				
	High	Min. 2.0V				
Counter Input	Low	Max. 0.4V@16mA(Absorb current)				
	High	Min. 2.4V@-8mA(Output current)				
Others						
Test Terminal		SCSI-II connector busbar, 68-pin				
Operating Power Supply		12VDC±10%, <0.5A				
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%RH(no condensation); operating air pressure: 80~110kPa				
Dimension		130.5mm(H)*20mm(W)*230.5mm(D) (with puller)				

Note 1: For more and latest information, please contact NGI.
Note 2: For other specifications, please contact NGI.