



International Ltd.

TEST – MEASURE - CONTROL

CATS-2000 Price.....\$148,500.00

“Configurable Automated Test System”

Standard Delivery = 50 Days ARO

CATS-2000 Pricing

PN 100-0053-001

Deliverables:

- Users Guide

Warranty:

- 1 Year Warranty on Hardware
- 90 Day Warranty on Software

Optional:

- On Site Installation & Training



Dimensions: 42.31”H x 23.0”W x 36.0”D

CATS-2000 HW Description:

- (1) 22-pin BNC-2090A shielded rack-mount I/O connector panel
- (1) BNC input in support of 250 MHz/s digitizer/oscilloscope
- (48) BNC inputs supporting Industrial 24V Input, optically isolated
- (32) BNC inputs in support of 18 bit 500kS/s Analog inputs
- (16) BNC inputs in support of 250kS/s 16 bit Analog input
- (6) Three-port channels in support of two three phase measurements, each consisting of self-fused (5A) system with Vin, Vout and Vref

Module (Analog Input (1) Description (included))

[2 X] Channels	16
Single-Ended Channels	16
Differential Channels	8
Resolution	18 bits
Sample Rate	625 kS/s
Max Voltage	10 V
Maximum Voltage Range	± 10V
Maximum Voltage Range Accuracy	980 uV
Minimum Voltage Range	± 100 mV
Minimum Voltage Range Accuracy	28 uV

Module (Analog Input (2) Description (included))

Channels	16
Single-Ended Channels	16
Differential-Ended Channels	8
Resolution	16 bits
Sample Rate	250 kS/s
Voltage Range	± 10V
Sensitivity	97.6 uV
Accuracy	112 uV
Ranges	4

Module (Digitizer/Oscilloscope) Description (included)

Channels	2
Resolution	8 bits
Simultaneous samples	Yes
Sample Rate	250 MS/s
Bandwidth	125 MHz
Input Impedance	50 / 1M Ohm
Max Common Mode Voltage	35 V
Max Voltage	± 20V
Frequency Range	0 – 125 MHz
Minimum Voltage Range	20 mV

Module (Industrial Digital Input) Description (included)

Channels	48
Timing	Software
Logic Levels	24 V
Input Current Flow	Sink/Source
Max input range	± 60 V
Programmable Filters	Yes
Watchdog Timer	No
Handshaking	No
Pattern I/O	No

<u>Module (Current Input) Description (included)</u>		<u>Module (Voltage Input) Description (included)</u>	
Channels	4	[2 X] Channels	3
Single-Ended Channels	0	Single-Ended Channels	0
Differential Channels	4	Differential Channels	3
Resolution	24 bits	Resolution	24 bits
Sample Rate	50 kS/s	Sample Rate	50 kS/s
Max Voltage	24.6 kHz	Bandwidth	24.56 kHz
Maximum Current Range	$\pm 5A$	Max Voltage	300V
Maximum Current Range Accuracy	0.11 mA	Maximum Voltage Range	$\pm 300V$
Simultaneous Sampling	Yes	Maximum Voltage Range Accuracy	38 μV
Input Impedance	12 mOhm	Simultaneous Sampling	Yes
		Input Impedance	1 MOhm

CATS-2000 Software (SW) Description:

The CATS-2000 family of equipment is typically associated with the higher powered NI-PXI chassis with built-in processor controller, specialized operating systems built specifically for NI embedded control, and the capability for fast and plentiful data I/O.

This CATS-2000 specification is targeted toward a unit developed specifically for power distribution system analysis and certification. The unit is built within an EMI shielded 19" rack enclosure with a shielded input system as it was designed to be placed in a highly 'noisy' electronic environment, and system operation was intended to be controlled and viewed remotely via a 500' fiber optic link. The unit hardware was built for 3 phase voltage and current measurement over a variety of test scenarios controlled by the CATS-2000.

Standard Main GUI

This is the basic 5 layer CATS graphical user interface (GUI) accompanying the Fastek CATS operating system. The CATS USER's Guide leads operators to the specifics of setting up and executing test, measurement or control operations specific to their desires with minimal effort.

3 Phase Current Configure/Control

Fastek's 3 Phase Current module provides an interface to a wide variety of general purpose analog input platforms. The modules support platforms with a current range of $\pm 5A$, sampling rates up to 50Ks per second, and 24 bits of sample resolution. Fastek's highly scalable application architecture supports multiple current input modules each controlling 4 channels, or greater.

3 Phase Voltage Configure/Control

Fastek's 3 Phase Voltage module accommodates interfaces to many different general purpose analog input platforms. The module here supports platforms with a voltage range of $\pm 300V$, sampling rates up to 50Ks per second, and 24 bits per sample of resolution. Fastek's CATS O/S supports multiple analog input modules each controlling 3 channel, or greater, single ended and differential DAQ hardware.

Analog Input Configure/Control

Fastek's generic Analog Input Module may also be used over a wide variety of NI analog input cards. In this application the unit is configured to both; a 625kSamples per second analog input/counter and a 250kS/s analog input device. This configuration supports inputs in the range of $\pm 10V$ with 18/16 bits of resolution. All Fastek modules may be configured to share configurations.

Data Logger Module

This CATS-2000 data logging capacity can be set for short (per run) or specified (targeted) data recording, or continuous data logging. In the continuous mode it may be run for long term, bounded only by the available data storage space and logging speed ability. Storage may be on the local controller or directly to the operator specified database with the operator specific schema. Data recording includes pre/post and partial triggering capability as well as operator specified scaling.

Digital Input & Oscilloscope Configure/Control

Fastek's CATS-2000 digital input implemented in this system is also only a specific instance of many digital I/O supported by the flexible CATS operating system. In this configuration the software is configured to support up to 48 channels of input for 24VDC logic levels. As with any of the data, this is available for logging, triggering, or changing the course of the unit operation as specified by the operator.

Sometimes witnessing the repetition, event occurrence, or other perturbations in signals is necessary in test, measurement and control. The Fastek CATS is compatible with all NI (and third party) equipment. This CATS-2000 supports a 250MS/s 8-bit digitizer/o-scope for real-time recording of signals during test, measurement or control. With the versatility of the NI equipment and the Fastek CATS LabVIEW based software, this signal can not only be recorded but used as trigger events for other unit operations.

fastek International Ltd.

1065 Sierra Court NE, Suite A, Cedar Rapids, IA 52402 Phone: (319) 294-6664
250 Regency Court, Suite 301, Brookfield, WI 53045 Phone: (262) 901-1661

www.fastekintl.com