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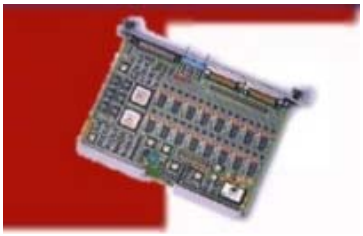
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Find the *GE Fanuc / ICS ICS-110B-32B* at our website: *Click HERE*



View an enlargement by clicking on the image above

ICS-110B

32-Ch., 100 kHz/Ch., 24-Bit Sigma-Delta ADC Board

The ICS-110B is designed to provide a complete data acquisition solution in a single 6U VMEbus slot. The ICS-110B mother board includes thirty-two 24-bit, 100 kHz/channel Sigma-Delta ADCs. The ICS-110B includes a daughter board and provides 2-pole anti-alias filtering consistent with the anti-aliasing requirements of the Sigma-Delta ADCs, programmable gain of up to 31.5 dB in 0.5 dB steps, and internal test signal generation and injection capabilities for performance monitoring and fault location (PM/FL).

Designed for applications in sonar, digital audio, vibration analysis and test and measurement, the ICS-110B board combines the ultimate in analog and digital technologies to offer unparalleled features and performance. The high channel density of this board allows the user to implement a system with over 500 channels of signal conditioning and data acquisition (with simultaneous sampling at high sample rates) in a single VMEbus enclosure.

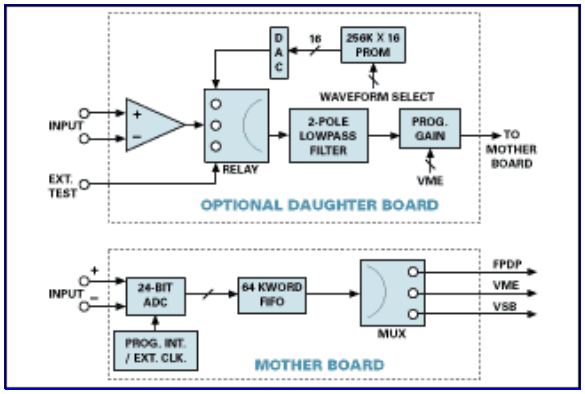
MOTHERBOARD FEATURES:

- Optional 16-bit operating mode;
- Simultaneous sampling at rates of up to 100 kHz/ch.;
- Software selectable highpass filter for low frequency rejection;
- External of internal clock and trigger;
- Internal clock programmable in steps of less than 20 Hz;
- Greater than 105 dB signal-to-noise ratio (including harmonic distortion and crosstalk);
- VME, VSB and FPDP interfaces;
- Up to 32 boards can be bussed over FPDP; and
- Software device drivers for VxWORKS and Solaris.

OPTIONAL DAUGHTER BOARD FEATURES:

- Up to 32 high impedance differential inputs;
- 2-pole lowpass anti-alias filters (which can be bypassed);
- -31.5 dB to 31.5 dB programmable gain in steps of 0.5 dB;
- Internal or external test signal injection; and Internal test signal stored in PROM.

BLOCK DIAGRAM:



ICS-110B SINGLE CHANNEL BLOCK DIAGRAM
(Click on diagram for an enlargement)

MOTHERBOARD SPECIFICATIONS:

No. of Differential Analog Inputs:	8,16 or 32
Input Impedance:	10 kilo Ohms
Full Scale Input:	2.0 Vpp differential (each wire)
Max. Input Signal BW:	43 kHz (-3 db)
Input Sample Rate:	128 x Output Rate for BW < 22 kHz 64 x Output Rate for BW > 22 kHz
Output Rate (Effective Sample Rate):	Max. 100 kHz/Ch. Min 2 kHz/Ch.
Internal Sample Clock:	Programmable in steps of 20 Hz
Signal-to-Noise:	>110 dB in 128x mode > 105 dB in 64X mode
Total Harmonic Distortion:	-105 dB
Crosstalk:	-105 dB
On-Board Storage:	64 KWords
Output Word Length:	32 bits packed for 2 channels or 24 bits for 1 channel on both VME or VSB 24 bits only on FPDP
VMEbus Interface:	A32/24/16 D32 BLT Slave Vectored interrupts
VSBbus Interface:	A32 D32 BLT Slave Polled interrupts
FPDP Interface:	32-bit, 80 Mbytes/s
Power:	7 A @ +5 V 0.5 A @ +12 V 0.24 A @ -12 V
Operating Temp:	0 degrees to +50 degrees Celsius
Storage Temp:	-40 degrees to +85 degrees Celsius
Humidity:	90% RH, non-condensing
Board Size:	233 x 160 mm (VMEbus 6U)

ORDERING INFORMATION:

ICS-110B-yy

- VMEbus ADC board (Motherboard only) with 2 Vpp differential input range
- **yy:** Number of channels (8,16 or 32)

ICS-110B-32B

- VMEbus ADC board (32-channel motherboard only) with 10 Vpp differential input range

ICS-110B1-yy-AA

- VMEbus ADC board with Signal-conditioning daughter card
- **yy:** Number of channels (8,16 or 32
- **AA:** 3.5, 35, 75; Anti-alias filter cutoff frequency in kHz (contact the factory for other options

DRV-110B-VXW

- Software device driver for VxWORKS operating system

DRV-110B-SSS

- Software device driver for Solaris operating system

To order the ICS-110B, please contact an

Note: Specifications are subject to change without notice

DAUGHTERCARD SPECIFICATIONS:

No. of Differential Inputs:	8, 16 or 32
Input Impedance:	> 1 M Ohms (with ± 5 V max. input) > 100 k Ohms (with ± 25 V max. input)
Max. Input Level:	Up to 50 Vpp differential (Contact the factory for required option)
Lowpass Filter:	2-Pole Butterworth with a cut-off frequency of 75 kHz for a flat response up to 44 kHz (see ordering information for other options)
Gain:	-31.5 dB to 31.5 dB in steps of 0.5 dB
External Test Signal:	7 Vpp single-ended max.
Internal Test Signal:	Eight 16-bit pre-programmed waveforms in a 256K x 16 PROM
Signal-to-(Noise+THD+Crosstalk):	> 85 dB at 0 dB Gain and 2 Vpp Differential input
Power:	0.5 A @ +5 V 0.26 A @ +12 V 0.17 A @ -12 V
Environmental:	Same as the ICS-110B Motherboard

Note: Specifications are subject to change without notice

MORE INFORMATION:

- ICS Tech Note, Input No. 24B, "ICS-110B 24-Bit Data Acquisition Board"
- ICS Tech Note, Input No. 19B, "Real-Time Data Acquisition Solutions for Large Applications"
- ICS Tech Note, Input No. 12B, "Rapid Deployment of COTS Solutions for Sonar Processing
- ICS White Paper, "A Breakthrough in Mine Sonar Implementation"

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