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Data Sheet

August 15, 2026

GE FANUC / ICS

GE Fanuc / ICS ICS-554E-4-MN 4-Channel, 14-Bit, 105 MHz PMC ADC Board with Down-Converters and Xilinx FPGA

The ICS-554E-4-MN is a 4-channel, 14-bit, 105 MHz PMC ADC board from GE Fanuc / ICS. It features down-converters and a Xilinx FPGA for high-speed data acquisition and signal processing in demanding applications.



MODEL

**GE Fanuc / ICS
ICS-554E-4-MN**

CALIBRATION

**Available on
request**

CONDITION

Used

STATUS

In stock

RFQ / SKU

ICS-554E-4-MN

LISTING

<https://aumictechlabs.com/products/ics-554e-4-mn-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

This unit

The GE Fanuc / ICS ICS-554E-4-MN is a 4-channel, 14-bit PMC ADC board delivering simultaneous sampling at up to 105 MHz per channel for high-speed signal acquisition and real-time processing. The module integrates four precision analog-to-digital converters with SNR exceeding 72 dB and SFDR greater than 85 dB, optional Graychip GC4016 quad digital down-converters for simultaneous processing of up to 16 arbitrary signal bands, and a user-programmable Xilinx FPGA with 3 million gates almost entirely available for custom signal processing logic. Technical Specifications ADC Channels: 4 channels, 14-bit resolution Maximum Sampling Rate: 105 MHz per channel, simultaneous across all channels Signal Quality: SNR >72 dB; SFDR >85 dB Digital Down-Converters: Optional Graychip GC4016 quad DDCs supporting

simultaneous down-conversion of up to 16 FDM signal bands FPGA: Xilinx device with 3 million gates; nearly all gates available for user applications Onboard Memory: 1 MByte total, organized as two independent 0.5 MByte FIFOs enabling simultaneous wideband and narrowband capture Clock and Trigger: Internal or external sources supported; coherent sampling across single channels, multiple channels on same board, or multiple boards PCI Interface: 64-bit, 66 MHz DMA; PCI 2.2 compatible User I/O: 64 signals routed to FPGA; LVTTTL standard with LVDS support

Key Features Fast 64-bit DMA for efficient host data transfer Dual FIFO architecture decouples wideband and narrowband processing streams Coherent sampling capability simplifies phase-coherent multi-channel and multi-board systems 64 programmable I/O signals enable custom front-end and trigger logic

Typical Applications Military communications and signal intelligence 3G/4G cellular base station development Smart antenna systems and radar beam forming Wireless test and measurement Satellite ground stations

Compatibility & Integration The PMC form factor integrates with any carrier card supporting PMC modules, including VME, PCI, and CompactPCI platforms. External clock and trigger synchronization supports distributed multi-board deployments.

ICS554E4MN Characteristics / Specifications

PARAMETER	VALUE
Model	ICS-554E-4-MN
Base Model	ICS-554E
Channel Build	4 channel
Ddc Option	MN includes Graychip GC4016 down converters
Instrument Type	4 channel PMC ADC with DDC and FPGA
Channel Count	4
ADC Resolution	14 bits
Maximum Sample Rate Per Channel	105 MHz
Simultaneous Sampling	yes all channels
Signal To Noise Ratio	greater than 72 dB
Spurious Free Dynamic Range	greater than 85 dB
DDC Devices Optional	4 x Graychip GC4016
Maximum Downconverted Bands	16
FPGA Size	3 million gate Xilinx
Onboard Memory	1 MByte
FIFO Organization	two independent 0.5 MByte FIFOs
PCI Interface	PCI 2.2 64 bit 66 MHz DMA
Pn4 User IO Signals	64 routed to FPGA
Pn4 Signaling LVTTTL	yes
Pn4 Signaling LVDS	yes onDandEClocking: internal or external clock and trigger
Coherent Sampling	single channel multi channel multi board
Form Factor	PMC
Carrier Compatibility	VME PCI CompactPCI PMC carriers
DDC Option Code Class	MN includes DDCs
Available Channel Builds	1 2 or 4 channel versions

PARAMETER	VALUE
Memory Organization	dual half MByte FIFOs

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Technical Specifications	
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Notes
ICS-554E-4-MN is the 4-channel build with MN down-converter option of the ICS-554E PMC ADC. Numeric performance from GE/ICS ICS-554E family literature.
Numeric rows from Abaco/GE ICS-554 family product literature for ICS-554E.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.