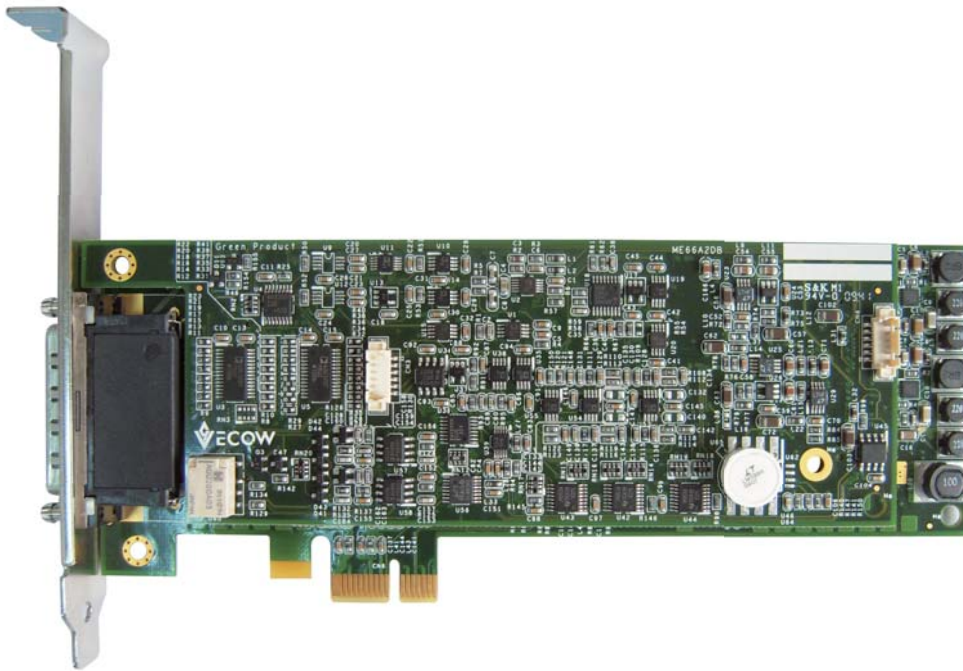


# ME-6653

500 KS/s, 16 Bits, 32-CH, PCIe, PWM/Encoder, Multifunction Card



## Key Features

- 500 KS/s/ch sampling rate, support 32 analog inputs at 16 bits resolution.
- 1 MS/s/ch output rate, support 2 analog outputs at 16 bits resolution.
- 16 differential, 32 single-ended analog input.
- 1023 samples per input/output function.
- With synchronization bus.
- Low profile is available for easy application integration.

## Overview

The Vecow ME66 is a series of high-performance data acquisition devices with PCIe Interface. They were built for demanding industrial, automation and science applications. The ME66 integrates analog inputs, analog outputs, general purpose digital I/Os, timer/counters and a proprietary inter-system-synchronization-link (ISSL). A fully automated analog calibration circuitry is included as the foundation of high precision and long-term accuracy. Calibration routines can be performed upon user's request. Despite its low-profile dimensions, rapid data transfer can be achieved, thanks to PCIe bus interface. Scatter-gather DMA engine technology and sophisticated device-driver API help to transfer large data chunks without hassle.

## Specification

Mechanical	
Interface	PCIe x1
Dimensions	178 x 64 x 13 mm
Certifications	FCC, CE, RoHS Compliance
Low Profile Module	Yes
Analog Input	
Channels	16 Differential, 32 Single-Ended
Sampling Rate	500 KS/s/ch
Resolution	16 Bits
Input Voltage Ranges	$\pm 10$ V, $\pm 5$ V, $\pm 2.5$ V, $\pm 1.25$ V
Input FIFO Size	1023 Samples
Data Transfer Mode	Scatter/Gather DMA, Interrupt, Polling
Analog Output	
Number of Channels	2
Output Rate	1 MS/s/ch
DAC Resolution	16 Bits
Output Voltage Ranges	$\pm 10$ V or $\pm$ External Reference
Output FIFO Size	1023 Samples/ ch
Data Transfer Mode	Scatter/Gather DMA, Interrupt, Polling
Digital I/O	
Number of Channels	48
Maximum Clock Rate	40 MHz
FIFO Size	1023 Samples For Each I/O Direction
Logic Level	3.3 V TTL/ CMOS, On Lower 16-Bit Port 3.3 V/ 2.5 V/ 1.8 V LTTL/ LCMOS, On Higher 32-Bit Port
Programmable I/O Direction	Yes, On Per Pin Basis
Data Transfer Mode	Scatter/Gather DMA, Interrupt, Polling
Timer/ Counter	
Number of Timer/ Counter	2
Resolution	32 Bits
Max. Source Frequency	40 MHz
PWM/ Encoder	Yes, Support x1/ x2/ x4 Encoder Modes
Measurement Modes	Edge Counting, Period, Frequency
Generation Modes	Single Pulse, Continuous Pulse, Frequency
Glitch Removal	Yes
Synchronization/ Triggering	
Triggering	Analog, Digital
Trigger Mode	Post, Gated, Middle
Trigger Source	Ext. Digital , Analog, Pacer, Software
Synchronization Bus	Yes

## Ordering Information

Part Number	Description
ME-6653	500 KS/s, 16 Bits, 32-CH, PCIe, PWM/Encoder
ME-6653L	500 KS/s, 16 Bits, 32-CH, PCIe, PWM/Encoder, Low-profile
CB-168368-01	Male/Male Cable with 68-Pin SCSI-VHDCI , 1M
TD-268001	Terminal Board with DIN Rail Mounted, 68-Pin SCSI Female Connector

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