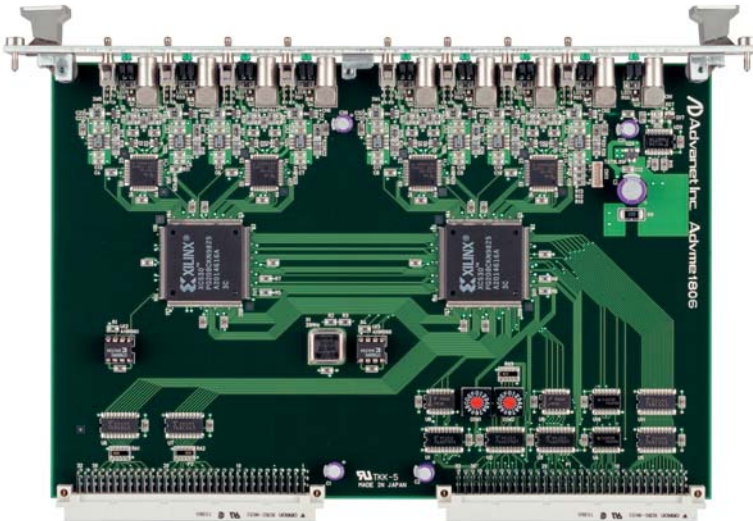# Advme 1806

## 8-ch 100MHz Counter Board

## Features

VME bus compatible high-speed counter board with 8-channel input
Counter mode and timer mode for a wide variety of applications
All eight channels have a 24-bit length counter
Capable of measuring a maximum pulse repetition frequency of 100MHz
External gate signal can be used to add a gate signal from outside
Internal gate signal can be programmed within the range 1ms to 990s
By setting the internal register from the software, the internal gate signal of any channel can be output externally
The gate switching toggle switch on the front panel can be used to switch between external gate signal input and internal gate signal output
100ns, 1μs, 10μs or 100μs can be selected as the minimum resolution in timer mode
Counters can be used as a 48-bit counter by connecting them in a cascade connection
TTL or NIM level can be used as an input pulse signal
LED lamps for monitoring the status of input signals for each channel
Each channel has an independent interrupt vector, allowing various interrupt events to be issued
C-language sample program provided
Device driver for VxWorks available (option)

## Specifications

Pulse input
    No. of channels : 8 channels
    Input signal level : TTL/NIM (switch using a switch on the front panel)
    Maximum input frequency : 100MHz (minimum pulse width is 5ns)
    Input resistance : TTL: 1kΩ, NIM: 51Ω
    Connector : LEMO connector

External gate signal
    No. of channels : 1 channel
    Input signal level : TTL
    Minimum pulse width : 160s (count enable for Hi level)
    Input resistance : 1.8kΩ
    Connector : LEMO connector (Shared use with internal gate input, Use the switch on the panel for switching)

Internal gate signal
    No. of channels: 1 channel
    Input signal level: TTL
    Output current: Up to ±20mA
    Output signal switching: Set the register to allow the gate signal for any channel to be output externally
    Connector: LEMO connector (Shared use with external gate input, Use the switch on the panel for switching)

Operation mode
    Counter or Timer mode can be programmed for each channel
    Counter mode: Measures the number of pulses while the internal or external gate signal is open
    8 channels, 24-bit (can be connected in a cascade connection for use as a 48-bit counter)
    Programmable internal gate signal (1ms to 990s)
    Timer mode: Measures the time until a preset value is reached
    20-bit comparator (every channel)
    24-bit timer
    Programmable timer clock (100ns, 1μs, 10μs or 100μs)

VME bus Interface
    VMEbus Revision C.3 compliant
    A16: AM codes 29 and 2D
    D32/D16/D08(EO)
    Independent interrupt level and interrupt vector issued for each channel

Power requirements
    DC5V±10%, Typ. 700mA
    DC-12V±10%, Typ. 40mA

Board size : 262mm x 172mm x 20mm Double height/Single slot (excluding protrusions such as connectors)

Weight : Typ. 300g.

Note: The following specifications and product appearance are subject to change for enhancement without notice.

ISO9001 Certification: No.4016-1995-AQ-KOB-RvA
ISO14001 Certification: No. EMSC-1426