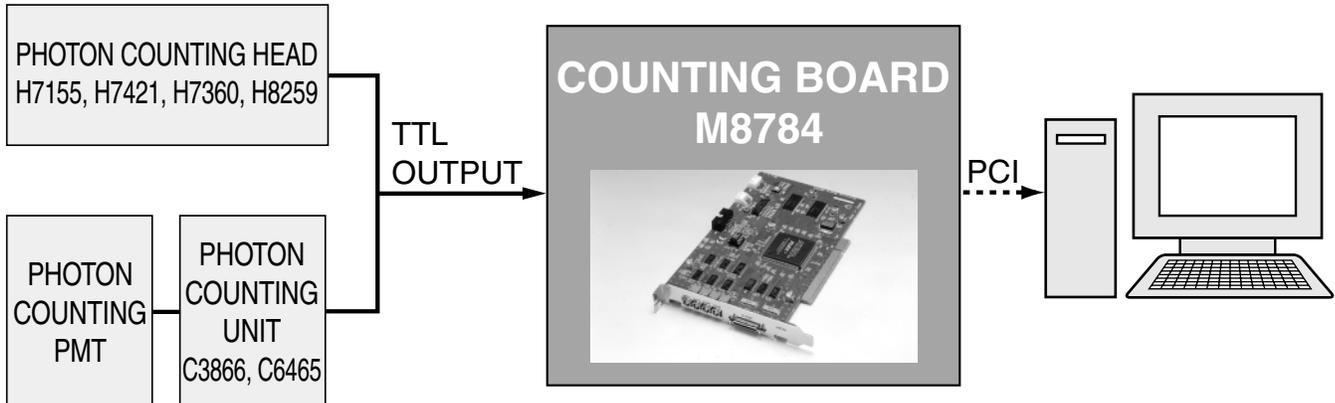


NEW

PCI BUS COMPATIBLE COUNTING BOARD

M8784

■ Connection Example



OVER VIEW

The M8784 counting board is a PCI bus add-in board type counter. The M8784 functions as a photon counter when combined with a photon counting head, etc.

The counter of the M8784 includes two counting circuits (double counter method) capable of counting input signals with no dead time. The internal memory allows pulse counting over extended periods with a high time resolution (10 μ s).

A maximum of two M8784 boards can be simultaneously controlled from a PC, making it possible to perform simultaneous dual-channel measurements.

Initial setting for the M8784 is simple and easy due to PnP (plug and play). You can start measurement on the day you receive the M8784.

The M8784 is designed to install into a PCI bus slot of desktop computers and cannot be used with notebook-sized computers. When using a notebook computer, use the C8855 counting unit also available from Hamamatsu.

• Ideal for long-term data collection such as in biological clock monitoring ^{*)}

This feature is feasible if the memory recording time is longer than the time needed to transfer the count data to a PC and write it into the storage medium. This allows time-resolved measurement (minimum resolution: 10 μ s) over a long period of time.

Memory recording time is calculated from "counter gate time \times memory data width".

(Example: minimum resolution 10 μ s \times maximum memory data width 256 000 = 2.56 s)

^{*)} Standard sample software may not work at some conditions depending on the combination of measuring time and time resolution. Please consult with our sales office in advance with information of your condition.

• Time-resolved measurement of chemiluminescence (minimum resolution 10 μ s)

• Supports different kinds of measurements

The M8784 is fully controlled by DLL (dynamic link library) functions that supplied with the M8784.

User can create own software program, which is adequate for various type of user measurement, based on the DLL functions.

FEATURES

- Internal memory (double memory method)
- PCI bus compatible
- Windows[®]98/98SE/2000/Me compatible
- Sample software supplied as standard item
- Measurements with no dead time (double counter method)
- Simultaneous 2-channel measurement (when 2 boards are used)

HAMAMATSU

SPECIFICATIONS

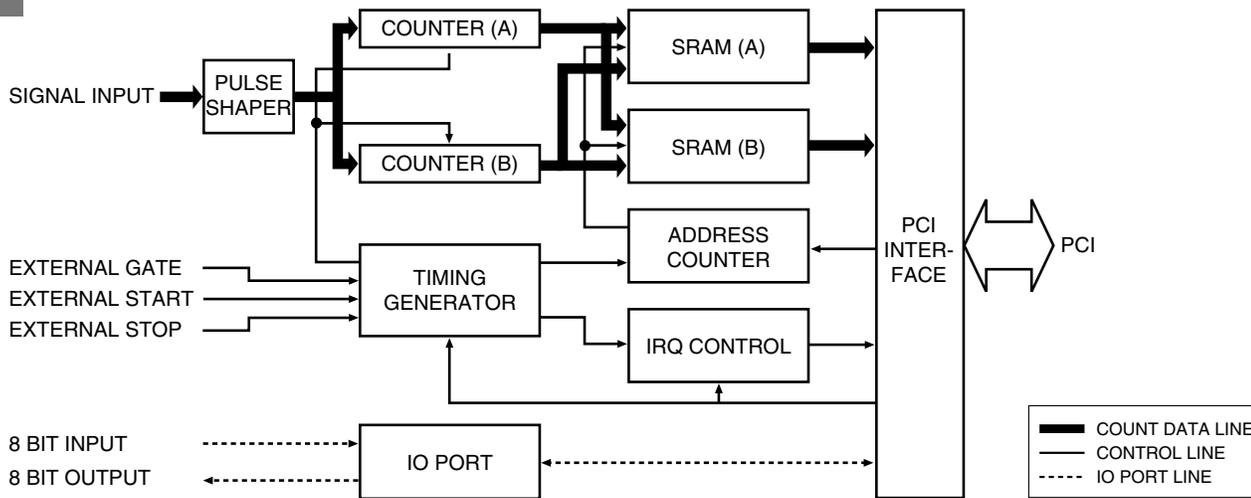
Parameter		Description / Value
Input	Number of Input Signals	1 ch
	Signal Input Level	TTL positive logic
	Signal Pulse Width	8 ns or longer
	Input Impedance	50 Ω
Counter	Counter Method	Double counter method
	Max.Count Rate	50 MHz
	Max.Counter Capacity	2 ³² counts/counter gate
Counter Gate	Counter Gate Mode	Internal, external, START-STOP
	Internal Counter Gate Time	10 μs to 10 s (1, 2, 5 step)
	External Counter Gate Time	100 ns or longer
Trigger	Trigger Method	Software or external trigger
	External Trigger Signal	TTL negative logic
Memory	Memory Method	Double memory method
	Memory Date Width	128 000 (when capacity of 2 ³² is selected) / 256 000 (when capacity of 2 ¹⁶ is selected)
	Memory Capacity	2 ³² (32 bit) / 2 ¹⁶ (16 bit)
General Output Section	Signal Input	TTL negative logic / 8 bit
	Signal output	Open collector / 8 bit
Compatible OS		Windows® 98/98SE/Me/2000
Bus Type		PCI
Supply Voltage		5 V / 1 A (supplied from PCI bus)
Size		Half size
Weight		150 g
Operating Ambient Temperature / Humidity		+5 °C to +45 °C / 80 % or less (no condensation)
Storage Temperature / Humidity		0 °C to +50 °C / 85 % or less (no condensation)

Supplied: CD-ROM (containing instruction manual, device driver, DLL, sample software*, etc.), Signal input cable (E1168-22), General-purpose I/O connector (JAE: TXA20A-26PH1-D2P1-D1), Connection cable set (JAE: XHP-3, XHP-4)

*: Sample software is configured from Lab VIEW™ of National Instruments, Inc.

CE : Conforms to the EMC directive (89/336/EEC) of the European Union.

BLOCK DIAGRAM



TPHOC0049EA

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Lab VIEW™ is a trademark of National Instruments Corporation.

Other product names, software names and company names mentioned herein may be the trademarks of their respective owners.

Subject to local technical requirements and regulations, availability of products included in this promotional material may vary. Please consult with our sales office.

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HAMAMATSU

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