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Evaluation circuit for optics module

C13390

Dedicated evaluation circuit for the optics module (C13398 series)

The C13390 is a dedicated evaluation circuit for the optics module (C13398 series). When the C13390 is connected to the PC through USB, the analog output signals of each channel of the C13398 series can be converted into digital signals, and the results can be acquired into the PC.
Both the C13398 series and the C13390 can be driven off of USB bus power. There is no need to prepare a separate power supply or the like. You can simply connect it to the PC through USB and perform evaluation and measurement.

Features

- **High-resolution digital output (16-bit)**
- **Up to 10 channels of output signals can be acquired into a PC.**
- **USB bus powered**
- **Built-in power supply circuit for driving the C13398 series**

Applications

- **Blood analysis device**
- **Absorbance analyzer**

Absolute maximum ratings

Parameter	Symbol	Value	Unit
Operating temperature*1	Topr	0 to +50	°C
Storage temperature*1	Tstg	-10 to +50	°C

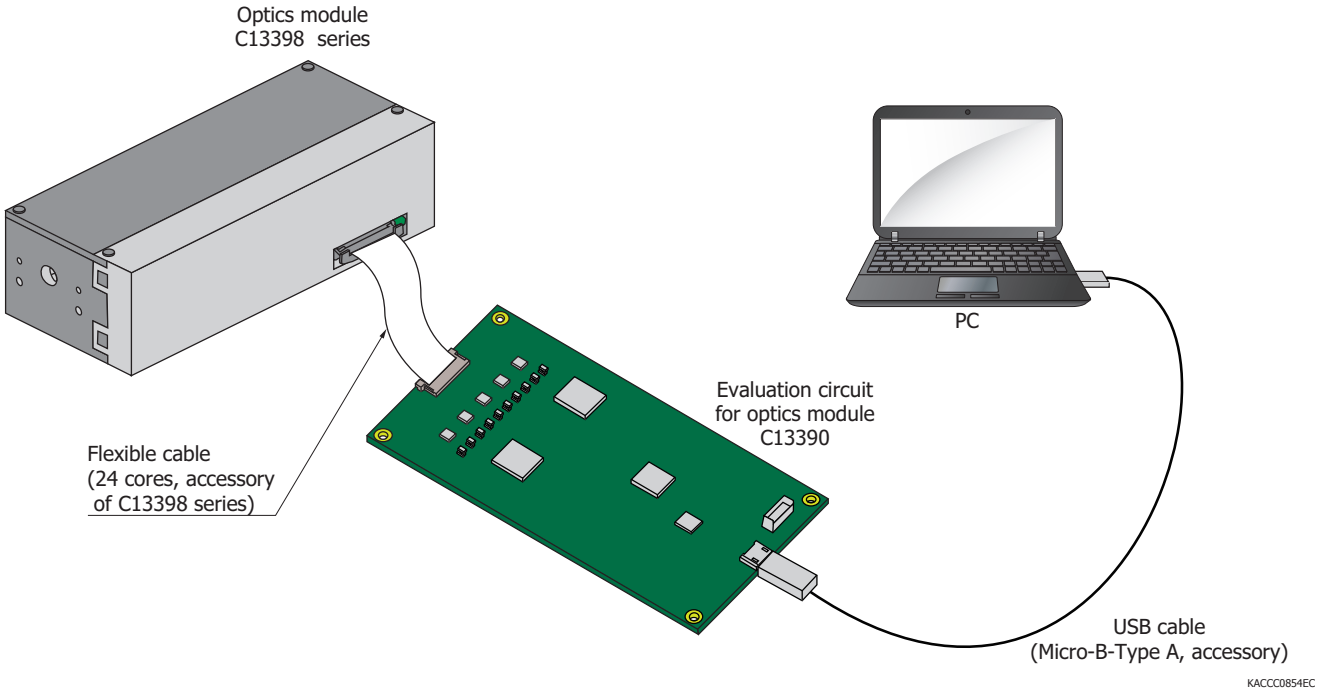
*1: No dew condensation
When there is a temperature difference between a product and the surrounding area in high humidity environment, dew condensation may occur on the product surface. Dew condensation on the product may cause deterioration in characteristics and reliability.
Note: Exceeding the absolute maximum ratings even momentarily may cause a drop in product quality. Always be sure to use the product within the absolute maximum ratings.

Electrical characteristics (Ta=25 °C unless otherwise noted)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Number of channels	-	Single-ended input	-	-	10	ch
Resolution	RES		-	-	16	bit
Input impedance	Zin		-	1	-	MΩ
Input voltage	Vin		-	-	±10	V
Full scale error	FSE		-	-	±32	LSB
Output voltage*2	Vo		-	±10	-	V
Current consumption*3	Is		-	-	170	mA

*2: Supply voltage to the C13398 series
*3: When connected to the C13398 series and used

Connection example

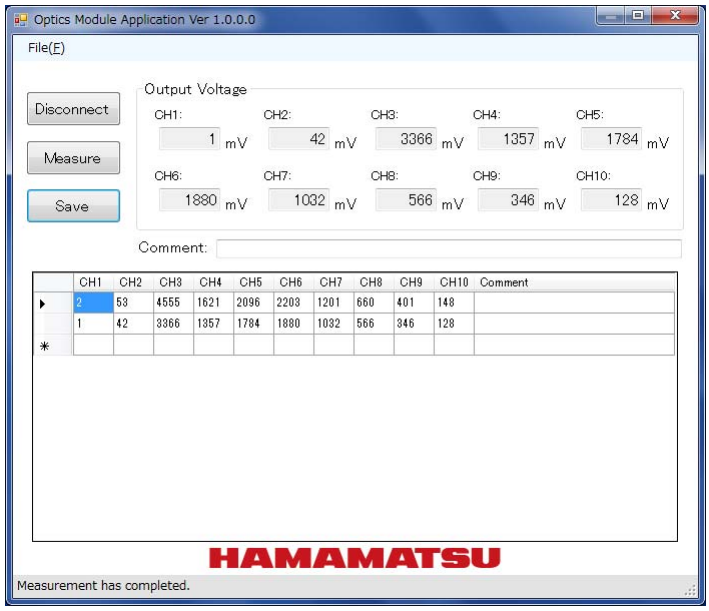


Sample software

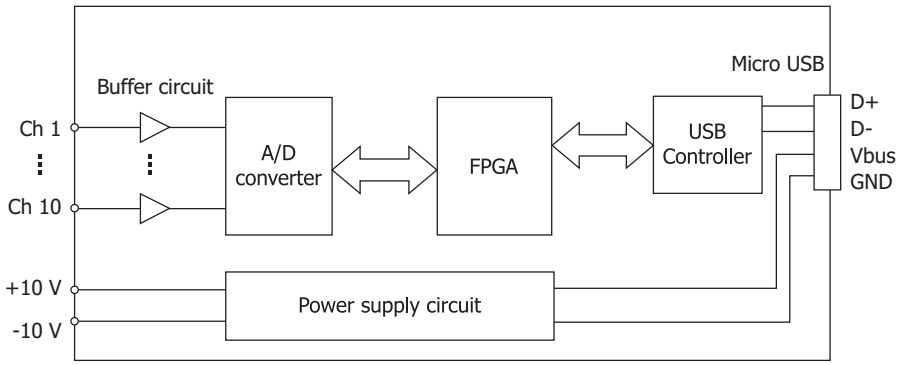
The supplied sample software can be used to acquire and save measurement data.

Compatible OS
Microsoft® Windows® 7 (32-bit, 64-bit)
7 SP1 (32-bit, 64-bit)

Note: Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States and/or other countries.



Block diagram



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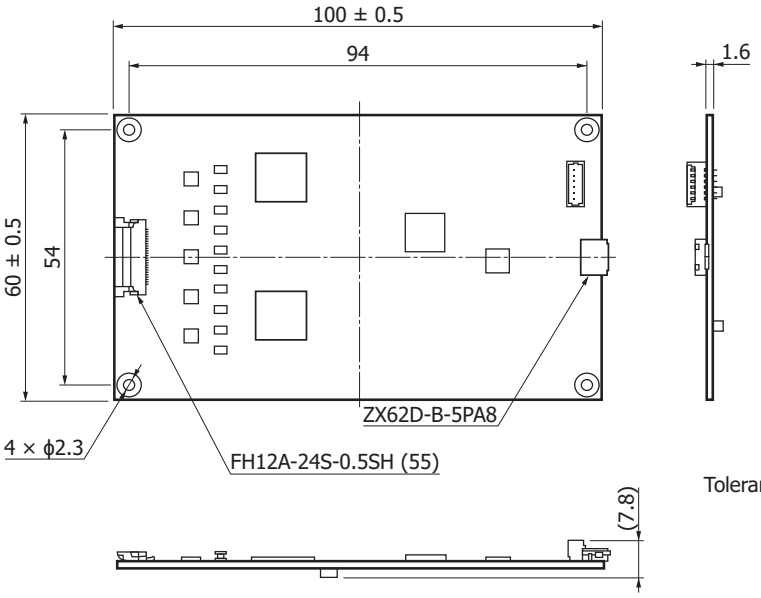
Dimensional outline (unit: mm)



Tolerance unless otherwise noted: ±0.3

KACCA0389EA

Accessories

· Instruction manual
· Sample software (CD-ROM)
· USB cable (Micro-B–Type A, length: 100 cm)

Related information

www.hamamatsu.com/sp/ssd/doc_en.html

■ Precautions
· Disclaimer

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Cat. No. KACC1253E04 Jul. 2019 DN