

Featured Products



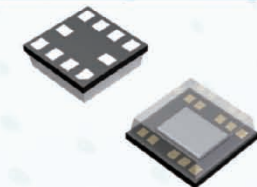
High precision detection delivers unmatched performance

Class-Leading* Low-Power Optical Sensor for Heart Rate Monitor

BH1790GLC

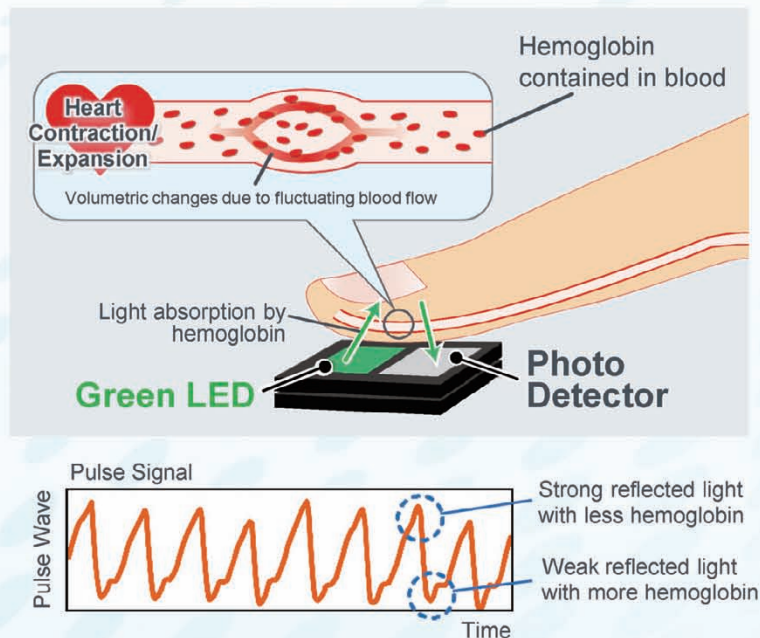
*ROHM February 2017 Survey

- Measure heart rate by simply touching the sensor
- Industry-low* current consumption: 0.74mA (including LED current)
- High accuracy detection with superior IR removal characteristics



WLGA010V28
2.8×2.8mm (t=1.0mm Max.)

Optical Sensor for Heart Rate Monitor Operating Mechanism (BH1790GLC)

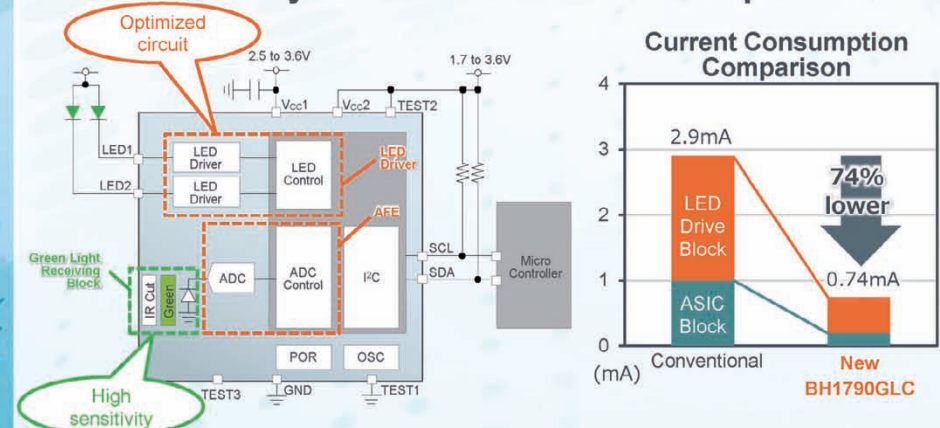


Ultra-Low Power Consumption

- ① Improved light receiving sensitivity reduces LED drive current
- ② Current consumption of the AFE block decreased by optimizing circuit configuration

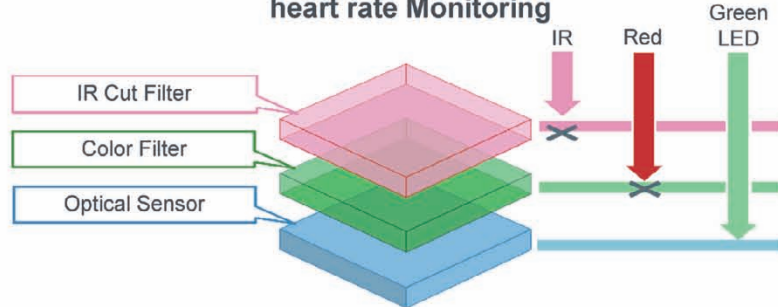


Industry's lowest* current consumption

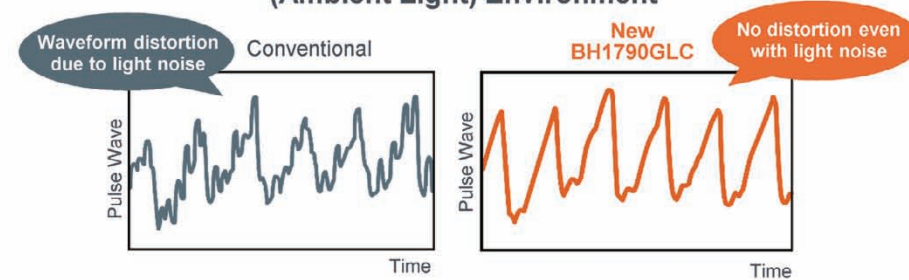


High Accuracy Even Under Strong IR Environments (i.e. Sunlight)

Filter design optimized for Optical Sensor for heart rate Monitoring



Pulse Signal Comparison in Noisy (Ambient Light) Environment



Ambient infrared and red light that easily penetrate the skin are removed using the IR Cut filter while the color filter emphasizes green light, enabling high accuracy detection

Applications

- Smartphones
- Wearables
- Tablets
- Smartwatches and more...



Easy-To-Use Kit Enables Immediate Evaluation Optical Sensor for Heart Rate Monitor Expansion Board for Sensor Shield Now Available for Purchase Online

Optical Sensor for Heart Rate Monitor Expansion Board

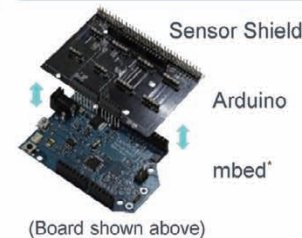


BH1790GLC-EVK-001

SensorShield-EVK-001



Implementation Example



*Refers to a prototyping MCU board and development environment supplied by ARM

Now Available Online



Part No: BH1790GLC-EVK-001
Online Distributors: Digi-Key, RS Components, MOUSER

Specifications

Part No.	Current Consumption (mA)	Analog Supply Voltage (V)	IO Supply Voltage (V)	Red Cut	IR Cut	I/F	Operating Temperature Range (°C)	Package
New BH1790GLC	0.2*	2.5 to 3.6	1.7 to 3.6	✓	✓	I ² C	-20 to +85	WLGA010V28

*LED current not included

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