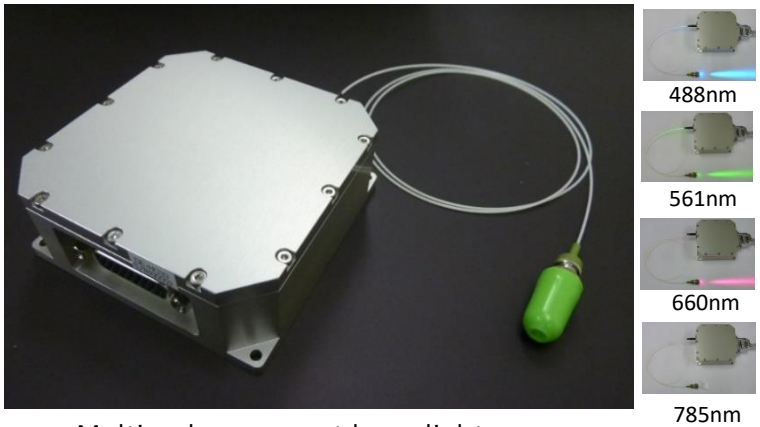
Nov. 19, 2021
QD Laser, Inc.

# Launch of Palm-Sized Multi-Color Compact Laser Light Source with Optional Driver for Biomedical Equipment

QD Laser Co., Ltd. (Headquarters: Kawasaki City, Kanagawa Prefecture, President: Mitsuru Sugawara, Securities Code: 6613) launched a palm-sized multi-color compact laser light source with an optional driver for biomedical equipment such as flow cytometers and ophthalmic diagnostics instruments. This light source provides equipment manufactures with all laser wavelengths required for each biomedical equipment in one module with stable output power, enabling them to miniaturize their equipment and shorten the development and production period as a new solution in this industry.




Multi-color compact laser light source
size (80 x 80 x t30mm)

Driver board (option)
size (110 x 100 x t16mm)

Global demand is expanding for biomedical equipment such as flow cytometers, ophthalmic diagnostics instruments, and fluorescence microscopy for their use in medical healthcare, drug development, and cell analysis, including cancer cells and COVID-19. Critical devices to the biomedical equipment are laser light sources with wavelengths from violet to near-infrared. We have developed patented highly stable single-frequency lasers emitting at 532nm (green), 561nm (yellow-green), and 594nm (orange) and shipped more than 4,000 units mainly for flow cytometers.

We are pleased to announce the launch of a palm-sized multi-color compact laser light source with an optional driver for plug-and-play. The light source integrates up to four wavelengths of the customer's choice from violet to near-infrared. This light source provides manufacturers with all laser wavelengths required for each biomedical equipment with stable output power in one module. With about half the size of other products* currently in use, this light source enables them to remarkably downsize their equipment, shorten the development and production period, and thus, reduce the production cost, providing a new solution in this industry.

We aim for an industry share** of 20% in light sources for biomedical equipment in five years,

*Comparison between the volume of driver integrated light sources of two other manufactures and the total volume of our light source and a driver board.

**Estimated annual accessible market size is 12,500 units (8,000 out of 16,000 units for flow cytometer, 4,500 units for ophthalmic medical device) based on the "Global Flow Cytometer Market 2020-2024".

【Use case】

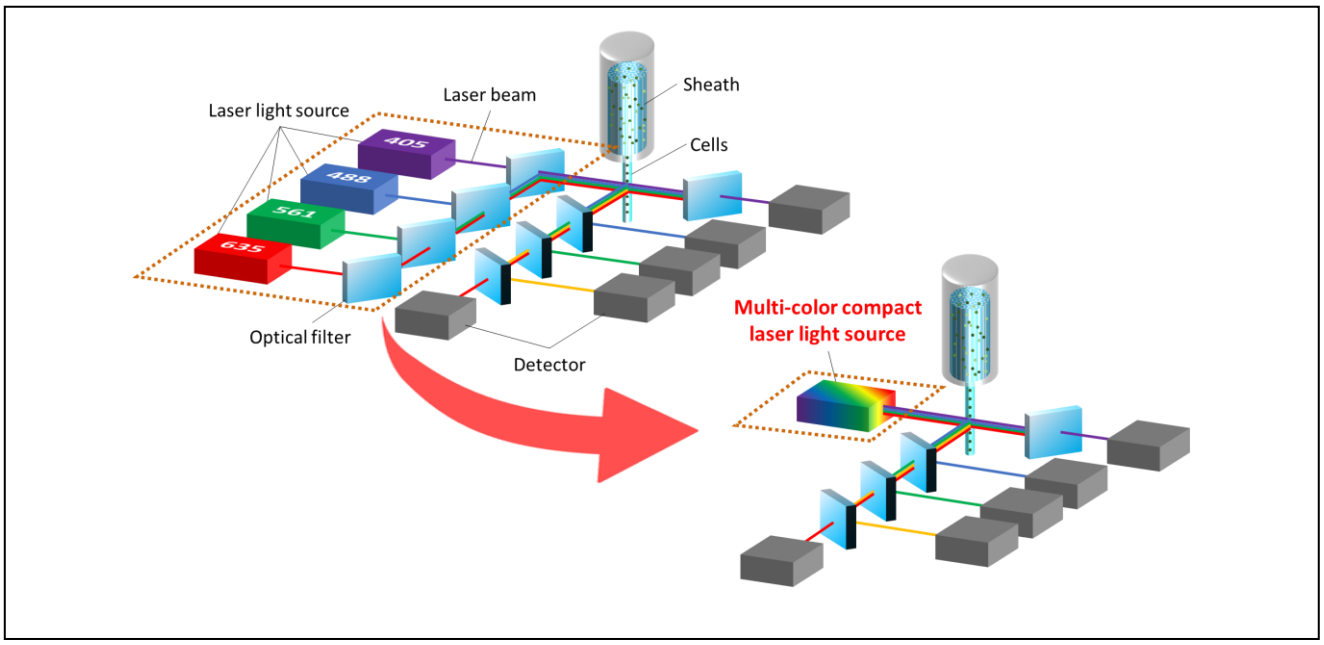



Figure. Flow cytometer.

Flow cytometry is a technique that can simultaneously analyze multiple properties (physical and scientific) of individual cells and particles at the speed of thousands to tens of thousands per second.
A laser beam from the light source(s) is focused where cells flow out from a sheath. The scattered light which contains each cell's characteristics is detected and analyzed. The multi-color compact laser light source enables remarkable downsizing and cost reduction of your equipment.

【Key features】

- Up to 4 wavelengths from 405 to 905nm of your choice
- Patented highly stable single frequency laser: 532nm, 561nm, 594nm
- Palm size of 80 x 80 x t30mm
- Excellent power stability against fiber bend (<2%)
- Optional plug-and-play CW/pulsed laser driver
- Tailor-made design possible for your requirements of laser arrangement

【Specification】

| | |
|---|---|
| Wavelength | One wavelength from 532, 561, 594nm<br>+<br>Up to three wavelengths from 405 to 905nm |
| Output power | >20mW |
| Power stability | <2% |
| Operating temperature | 20 to 30℃ |

Brochure is available from here.

【Contact Info】

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