

OEM Solutions

ONELIGHT
SPECTRA

A NEW SOLUTION

CLINICAL ANALYZER, MACHINE VISION AND DRUG SCREENING PRODUCT MANUFACTURERS.

Want more from your products? Want more for your customers? Want more market share? Unleash the potential of your technology with a OneLight™ custom OEM solution.

Build more capability and more selling features into your products. Whether you use light to capture images, quantify industrial processes, screen new drugs or make measurements in the clinical laboratory, OneLight can help you do more – typically for less than most other solutions.

Whether you are a system Integrator or a major manufacturer, OneLight can work for you. For machine vision, image cytometry or security, OneLight turns any conventional imaging system into a spectral imaging system. Now, you can acquire multiple images at different wavelengths and reconstruct spectral properties, pixel by pixel. Conversely, you can use OneLight to program an illumination profile that enhances contrast for the objects in your image. If the subject being imaged possesses wide variations in brightness, OneLight can even work with low cost cameras to maximize dynamic range and image quality.

OneLight can compensate for changing color balance to capture the best image for any camera – color or monochrome. It responds dynamically, changes faster than most cameras can capture images, and is also more precise than most shutters for precision exposure control. With real-time spectral feedback, there is no need to worry about aging lamps and changing performance as the lamp warms up. OneLight can dynamically compensate and produce steady, unchanging output. It also self-calibrates, so you won't have to recalibrate your measurement system as often.

For clinical chemistry or environmental analysis, OneLight helps your system perform better, with no waiting for robotics to move filters and no limits on the number of illumination filters you can build in. Since illumination is configured in software, the introduction of new reagent kits or tests is simplified. OneLight allows you to optimize your instrument to the chemistry, instead of compromising your test to match the limits of your optical filters. Introducing a new test? Change your software, instead of retrofitting your instrument. Now, you can get your new tests to market faster, tapping new revenue streams with more efficiency.

Where spectral analysis is used to quantify feedstock or for environmental analysis, some spectral peaks are often so weak they get buried, while others are so strong they saturate your measurement system. OneLight can dynamically configure your sample illumination to maximize the measurement range of your spectrometer, with digital control of illumination to dramatically improve the performance of even the lowest cost spectrometers. Add precision control of exposure time, and the possibilities are phenomenal.

Building advanced drug discovery or screening systems? Sorting cells? OneLight can replace multiple lasers, monochrometers, filter wheels and lamps for many applications. OneLight has also been successfully used for bright field fluorescence microscopy and confocal fluorescence microscopy.

IMAGINE THE POSSIBILITIES

OneLight will be introducing several standard wavelength ranges for general use, but don't let that limit your imagination. We can't be all things to all people, but if product volume justifies it, OneLight can provide custom solutions for highly specific illumination needs. Need a different wavelength range? Need more resolution? Need less resolution but more brightness? Ask us.

Operating in the wavelength range from the near-ultraviolet (350 nm) to the infrared (2500 nm), the possibilities are virtually limitless. There are a number of trade-offs that can be made between spectral resolution, wavelength range and light intensity, but a practical rule of thumb is that resolution will be about 1/30th of wavelength range. Of course, multiple units can be combined to provide even more flexibility for brightness, wavelength and spectral range.

When you can create any spectrum in software and control it dynamically in response to the real world, you can do almost anything. Let our people help your engineers discover new possibilities – with OneLight, control is made simple.

WHEN IT COMES TO MATCHING THE CAPABILITIES OF ONELIGHT, NOTHING COMPARES.

CONVENTIONAL SETUP
<p>LIGHT SOURCES:</p> <ul style="list-style-type: none">• multiple lamps• lamp power supplies• lasers
<p>SPECTRAL CONTROL:</p> <ul style="list-style-type: none">• filter wheels• filter wheel controllers• multiple sets of filters
<p>TIMING CONTROL:</p> <ul style="list-style-type: none">• shutter• shutter controller• chopper wheels• chopper wheel controllers
<p>INTENSITY CONTROL:</p> <ul style="list-style-type: none">• motorized apertures• controllers for apertures• motorized irises• controllers for irises• motorized screens• controllers for screens

vs.

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