

Rapid Non-Contact Color QC for Mobile Products

Consumer Electronics



Customer inspected color of exterior small parts and their solution required direct contact on each part slowing down the process which was not acceptable for their high-volume manufacturing line.



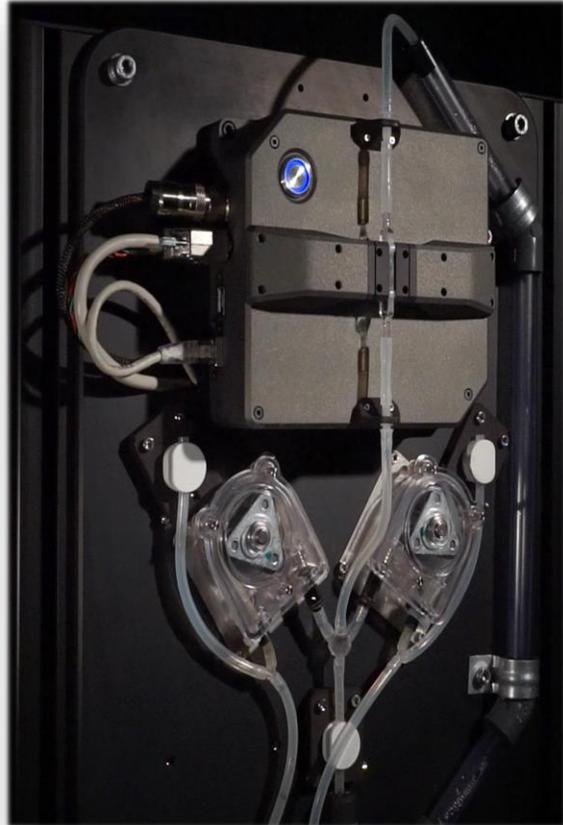
Ocean developed a customized, non-contact color measurement system that was put inline, rapidly measured in real-time and transferred data to customer's manufacturing management software.



Going from contact to non-contact high precision color measurement greatly improved product throughput and produced parts with lab-quality color accuracy.

Manufacturing Improvements for Color Anodization

Consumer Electronics



Customer needed to improve batch-to-batch color consistency of their anodized aluminum parts. Monitoring color accuracy of multiple dyes using lab equipment was very laborious and not fast enough to reach their goal.



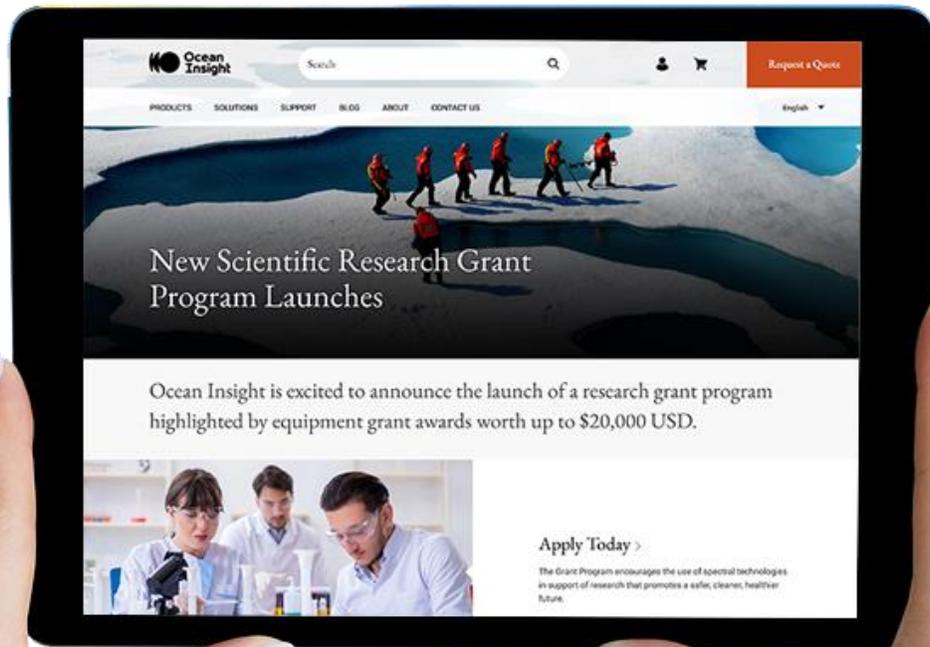
Ocean developed a customized, liquid transmission measurement system that was placed next to the anodization tank, providing real-time, lab-quality color measurements 24/7 measuring each individual dye simultaneously.



The system completely eliminated the laborious workflow of running samples to a lab and now provides data to the customer's manufacturing management software. Additionally, batch-to-batch color consistency greatly improved, moving yields from <95% to almost 100%.

Display Improvements for Wearable and Mobile Devices

Consumer Electronics



An industry-leading customer could not find a solution for measuring the transmissive quality of displays placed over micro sensors.



Ocean Insight worked with the customer to develop an easy to use, complete solution in a single, small package that could accurately measure haze defraction at a very small spot ($1.5\mu\text{m}$) within a range of narrow angle scattering (0.1° to 2.5°).



This customized system allows the customer to improve micro sensor performance behind displays, which they could not do utilizing off-the-shelf haze instrumentation.

Making a Better VR Headset

Consumer Electronics



A major VR headset manufacturer needed to implement several large dynamic range measurements in the QC control of optical components used in VR headsets.



Ocean and the customer collaborated to produce an industrial-grade, in-line, wide spectrum system.



The customer now manufactures VR headsets to the desired performance level, which could not be achieved with off-the-shelf products.