

OmniVision develops innovative smart dental mirror

05 February 2019 | News

Ultrabright SMARTmirror provides real-time images and video to dentists and patients during dental procedures



OmniVision Technologies, Inc., a leading developer of advanced digital imaging solutions, along with SMARTmirror, a developer of innovative dental products, has announced from MD&M West in Anaheim the world's first Wi-Fi-enabled smart dental mirror, which sends images and video in real time to a connected tablet.

This uniquely enables dental professionals and patients to see inside the patient's mouth during exams and procedures. The sapphire mirror is similar in size and weight to a standard dental mirror, which is made possible by OmniVision's tiny OVM6946 CameraCubeChip™ wafer-level camera module.

Some patients mistrust dentists and fear that they will suggest unnecessary and painful treatments. As a result, dentists face resistance to treatments that they believe are necessary for a patient's health. The SMARTmirror is designed to alleviate these concerns and improve the communication between dentists and patients. Its sapphire mirror provides 12x magnification and won't scratch or fog up like a standard mirror, and the 36 integrated LEDs with adjustable intensity offer brighter illumination when needed.

The OVM6946 camera module is built on OmniVision's OmniBSI+™ pixel architecture and can capture 400 x 400 resolution video at 30 frames per second (fps), providing a 120-degree diagonal field of view and a focusing range from 3mm to infinity. The module measures 1.05 x 1.05 x 2.27mm, which makes it small enough to embed seamlessly within the 4mm thick SMARTmirror.

The OVM6946 has also been integrated into a number of single-use medical devices for endoscopy, an application where small size is equally important.

The SMARTmirror is currently in pilot testing with 200 dentists, and well over 2,000 inspections and procedures have been performed using the device. It is expected to be available in mass production in Q2 2019.