


Tescan Optical Navigation and Correlation Camera

Navigate referencing true color, by image correlation, or by marks not visible with electron contrast alone

Tescan's Optical Navigation and Correlation Camera (ONCam) provides intuitive, image-based sample navigation from within Tescan's Essence™ software environment. ONCam is a 14 MP Baslera camera mounted directly to the chamber to provide a photo-realistic image of samples on the specimen stage at any time. ONCam is equipped with four independent LED segments that use ONCam's advanced minimum intensity stacking algorithm to eliminate reflections in the optical navigation image. Full integration of ONCam within the Essence™ interface allows users to perform quick "click and move" navigation to the region of interest using the ONCam image and provides correlative functionality via direct overlay of the SEM image on the ONCam capture, with adjustable transparency.



 Image of semiconductors chip captured using Optical Navigation and Correlation Camera (ONCam) with correlated SEM image overlay (SEM image captured in Wide Field Mode).

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Key benefits

Navigate to features of interest according to their true color, appearance or marks that cannot be seen with SEM contrast methods alone

Create a single, comprehensive macro-image of the sample by correlating and combining the ONCam photo-realistic image with Tescan's Wide Field secondary or backscattered electron image

Collect images for reporting and documentation for future reference by directly correlating the detailed SEM images to the ONCam's photo-based images and saving the images together

Overcome the reduced field of view that occurs when inserting a pressure limiting aperture into the objective for Low Vacuum operation by using the color image capture from ONCam to extend the field of view up to 165 x 125 mm

Speed image acquisition by selecting points of interest directly on the ONCam navigation image and exporting the coordinates to the optional Essence™ Image Snapper module, which then automatically acquires the images at the desired locations and settings