

Phantom TMX 7510



The Phantom TMX 7510 is the world's first high-speed camera to utilize back side illumination. Implementing this technology has allowed Vision Research engineers to develop a custom sensor capable of unprecedented speeds without sacrificing the image quality that Phantom cameras are known for.

BSI technology provides increased processing efficiency, allowing TMX cameras to maintain their high throughput levels even as frame rates increase. The TMX 7510 has 75 Gigapixel throughput which can provide over 76,000 fps at a full 1 Mpx resolution of 1280 x 800. At reduced resolutions the camera will record at over 770,000 fps in standard mode and up to 1.75M fps and 95ns in with the FAST mode.

One truth of high-speed imaging that never changes is that, 'with increased speeds comes the need for increased light'. The unique back side illuminated sensor found in the Phantom TMX 7510 deals with this issue by locating the metal parts of a traditional sensor that interfere with incident light to the photodiode to the back of the sensor. Moving those key elements to the back of the sensor allows even more light to reach each pixel, improving light sensitivity and QE.

This revolutionary platform is part of a generation of cameras that deliver greater throughput, premium features, and enhanced performance. Flexibility is key to ensuring that the TMX 7510 is capable of producing images that scientific analysts require. The ability to select binning mode allows for a variety of resolutions without sacrificing speed. In standard mode the TMX 7510 can reach over 300,000 fps at 1280 x 192 (long, thin rectangle), but if switched into binning mode the same speeds are possible at 640 x 384 (shorter and wider rectangle). The difference in resolution options means that researchers are better able to fit the camera sensor output to the size and shape of their high-speed event. These incredible speeds mean that data management is vital to ensuring as little downtime as possible. The Phantom TMX 7510 has up to 512GB of onboard RAM, can be fitted to use our custom non-volatile data storage, the Phantom CineMag, and comes equipped with 10Gb Ethernet download as a standard. All of these workflow tools are available on every TMX.

Like most Phantom cameras the TMX 7510 has interchangeable lens mounts (PL, C, M42 and Canon EOS) which enables the use of high quality and specialized optics without limitation. The camera mount can be customized for each particular test as needed.

Tekniske Data: