

Teledyne FLIR Introduces X858x and X698x Families of High-Speed, High-Resolution Thermal Science Cameras

The mid- and long-wave thermal cameras feature advanced recording, triggering, and synchronization capabilities for scientists, engineers, and researchers



January 26, 2022 – Today, Teledyne FLIR introduces two families of X-Series science cameras, the X858x and X698x, offering high-speed and high-resolution thermal imaging capabilities for scientific research and engineering applications within the mid-wave infrared (MWIR) and long-wave infrared (LWIR) spectrum.

The X858x and X698x cameras offer advanced recording, triggering, and synchronization capabilities. This includes the ability to remotely adjust the focus, improving the quality of thermal data acquisition while saving time and eliminating frustration when operating within dynamic environments.



Users can then seamlessly transfer the data from the onboard solid-state drive (SSD) to a computer for processing and analysis, executed through [FLIR Research Studio](#) or the [FLIR Science Camera SDK](#). This simplified experience enables users to immediately access a local copy of the data, providing in-the-moment data review and analysis. The cameras also support long-duration recordings, only limited by the size of the on-board, off-the-shelf SSD. This feature eliminates the need for high-speed data recording systems for some users, potentially saving significant time and costs on additional hardware and integration.

“The new X858x and X698x families of FLIR X-Series cameras are the most flexible, high-performance models in the FLIR scientific camera lineup to date,” said Desmond Lamont, global business development manager for Teledyne FLIR. “In addition to enabling more precise and convenient thermal data capture with programmatic lens control, the cameras include the ability to record directly to the onboard SSD, meaning users can rapidly configure their cameras to record for long durations without the need to invest in or integrate frame grabber-based recording systems. This feature greatly increases the utility of X-series cameras where longer timescale data capture is paramount and can save the user tens of thousands of dollars in budget, in addition to offering an overall smaller size and weight footprint for the total system.”



Each new camera also includes a dedicated trigger input on the rear panel and a new Tri-level Sync input, providing easy access to all methods of recording and synchronization across multiple camera units and types. This affords greater flexibility for user-specific recording requirements. In combination with motorized lens support, each model includes an integrated, four-position filter wheel. The wheel can be loaded with neutral density or spectral filters that further improve the quality of recording while saving time and mitigating frustration, especially when the camera is in a remote location.

The X858x MWIR and SLS LWIR family of cameras feature a cooled thermal camera core with high-definition resolution (1280x1084) and a 180Hz frame rate, for capturing the most refined data imagery. The X698x MWIR and SLS LWIR cameras feature 640x512 thermal resolution with a greater than 1kHz frame rate to capture stop motion high-speed events – whether in the lab or on the test range.

For more information, including local availability, pricing, and purchasing options, visit <https://www.flir.com/instruments/science/next-generation-x-series>.

About Teledyne FLIR

Teledyne FLIR, a Teledyne Technologies company, is a world leader in intelligent sensing solutions for defense and industrial applications with approximately 4,000 employees worldwide. Founded in 1978, the company creates advanced technologies to help professionals make better, faster decisions that save lives and livelihoods. For more information, please visit www.teledyneflir.com or follow @flir.