



Celebrating 26+ years of Imaging

We're celebrating 26+ years thanks to you! Diffraction Limited keeps evolving our observing solutions, including new SBIG® cameras and our Cyanogen Imaging® MaxIm DL Pro acquisition and processing software.

Five years ago, Diffraction Limited brought SBIG into our family. Over the past 12 months, we introduced our new lineup of SBIG Aluma® series cameras with sensors from Teledyne e2v, Sony, and ON Semiconductor. Continuing the tradition of innovation, SBIG Aluma cameras feature high-performance backlit and front illuminated sensors with outstanding sensitivity, cooling, and very low noise.

SBIG Aluma Series

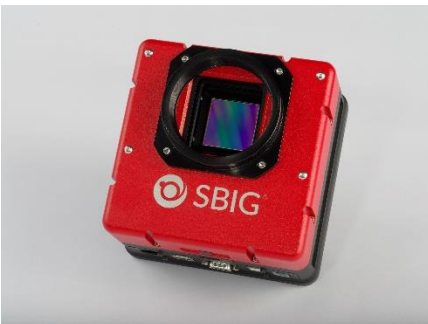
The SBIG Aluma series include Teledyne e2v Back-Illuminated Sensor options. The Aluma 77-00 and 47-10 have sensors with massive 24um and 13um pixels respectively, and superb >93% quantum efficiency (QE) to make the most of your precious imaging time and clear nights. Enhanced UV coatings are available for some models.

The Aluma 814 and 694 are based on Sony sensors, and have small pixels ideal for high-resolution refractors. These cameras are "ridiculously blue sensitive" according to renowned astro-imager Tony Hallas, with peak QE over 77% and very low dark current.

If you are looking for a precision photometry camera, the Aluma 3200 features an ON Semiconductor CCD sensor without annoying Anti-Blooming (NABG), excellent linearity and peak QE of over 85%. This is probably the best CCD in the KAF/KAI sensor family.

If you'd like a larger sensor in a compact camera, the Aluma 8300 or its budget-minded cousin, the STF-8300 use a classic ON Semiconductor CCD (formerly Kodak/Truesense).

Due to popular demand, we created a less expensive Aluma USB-only option, without WiFi. There are 6 sensors and 2 models of each (WiFi+USB, USB only), for a total of 12 new Aluma cameras.



SBIG Medium and Large Format CCD cameras

The SBIG STX series is an ideal choice for telescopes with a large image circle. Featuring sensors from ON Semiconductor, the STX-16803 remains the king of large format, affordable detectors. It continues to outperform its CCD and CMOS rivals with an ideal price/performance point. With a full 16-bits of dynamic range, long exposure capability to 1 hour, and air- and liquid-cooling options, the STX-16803 lets you go deeper, run longer, and avoid troublesome amplifier glow and calibration problems.

The windowless scientific grade STX-16801 and the well-known STX-9000 series cameras feature unique sensors and share the same architecture with the other STX cameras.

The affordable STXL family is the direct descendent of the famed STL-series Research Grade Cameras. The STXL-11002 is a full 45.3mm across the diagonal, equivalent in size to a full frame 35mm SLR. The slightly smaller STXL-16200 is the first of the APS-H cameras and the STXL-6303 is ideal for wide-field photometry and exoplanet transit research. Like the STX series, the STXL can take advantage of our AO-X adaptive optics unit.

Make sure to get the SBIG CCD of your dreams this year – while you still can get them at a great price!

SBIG New Products - Advanced CMOS Cameras

After intense effort by Diffraction Limited engineers, the Advanced Imaging Conference will be the launch event for the world's first off-axis guiding camera with adaptive optics control. The SBIG StarChaser SC-2 is a slim three-in-one gem, with a high-performance CMOS sensor, off-axis guiding optics, and integrated control for SBIG AO-8A adaptive optics units. The StarChaser is compatible with the STF and Aluma series, bringing AO capabilities to the entire line of SBIG cameras. Of course, like all SBIG guiders, it has an electro-mechanical shutter for easy dark frames. If you've dreamed of getting better guiding or an AO for your STF-series camera, you need an SBIG StarChaser!



In addition to our core astronomy business, we develop custom and specialty cameras for physical and life sciences, medical equipment, and specialty software for image processing. We're the secret ingredient in many products used by professionals and embedded in equipment you may know. We evaluate the latest sensors, and build unique solutions for companies, universities, researchers, and people like you.

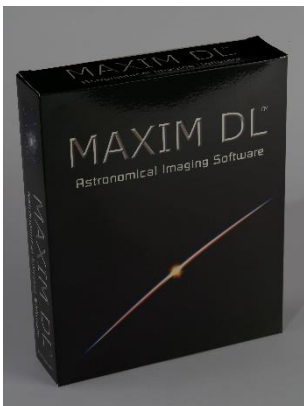
Advancements in sensor technology from Teledyne, Sony, GPixel, ON Semiconductor have resulted in new SBIG cameras like the StarChaser and more. Our new SBIG Aluma AC-series cameras feature advanced scientific CMOS image sensors, with capabilities you've come to expect from Diffraction Limited, and a few surprises you may not expect.

Come see us at the Diffraction Limited booth to learn more about these new innovative solutions to your imaging needs.

MaxDome II and Boltwood Cloud Sensor II for Reliable Observatories

Tired of your unreliable dome controller? Looking for an observatory dome or roll-off roof automation system?

The Boltwood Cloud Sensor II features a gold-anodized wind sensor and cloud-detecting infra-red thermopile, rain detection, and light level sensing. Combined with a MaxDome II controller, you rely on it to keep your equipment safe and operate your observatory night-after-night.



MaxIm DL Pro v6.21 – New Release

We're pleased to announce a new release of MaxIm DL Pro 6.21 with enhancements for photometry and much more. Long the gold standard for imagers, we've been busy adding new capabilities and helping backyard astronomers, educators, researchers, and robotic observatory operators do more. Special upgrade pricing is available for user of MaxIm 5 or 6. Thank you for your support for over 25 years.

Thank you for choosing Diffraction Limited and SBIG cameras as we reach this milestone. Please come say hello, let us know how we can help you achieve your goals.

See Diffraction Limited in Booth 31 + 32 !