

## Press Release

### Imperx Thermally Stabilized 31MP, 20MP and 17MP CMOS Cameras Improve Image Quality and Measurement Precision

*Imperx's new thermoelectric cooled (TEC) high performance digital CMOS cameras employ single stage Peltier cooling technology for increased thermal stability in demanding industrial and commercial applications including medical, scientific and machine vision markets.*



**BOCA RATON, FLORIDA – August 12, 2020**

- Imperx, Inc., a leading designer and manufacturer of rugged cameras, industrial cameras and imaging systems, announces the release of six new CMOS digital cameras with optional image sensor cooling technology. Imperx designs cameras with the thermal optimization for low noise performance and a full feature set for scientific imaging. The latest thermoelectric cooling option reduces

dark current and warm/hot pixels while stabilizing the image sensor temperature to improve measurement precision over a range of ambient temperatures.

This new line of Imperx high-resolution CMOS cameras are available in resolutions of 17, 20 and 31 MP and use the industry leading Sony Pregius IMX367, IMX387 and IMX342 CMOS image sensors with frame rates up to 32 fps. Available outputs include GigE Vision® with Power over Ethernet (PoE) and Camera Link®.

Each of Imperx's thermoelectric cooled cameras comes equipped with a single stage thermoelectric Peltier cooling module (TEC) to stabilize the image sensors' temperature to within +/-1 degree C of the set point temperature over a 20 degree ambient temperature range. The thermal stability feature in high precision metrology systems eliminates complex and time consuming image sensor characterization with ambient temperature variation. The stabilized image sensor temperature also reduces dark noise during long exposures improving sensitivity for ultra-low light measurements. The stabilized thermal environment coupled with the Sony sensor ultra-low dark current also improves the dark current compensation precision for superior uniformity in sensitive low-light measurements.

This powerful design translates to high desirability in many industrial applications including metrology, microscopy, flat panel display inspection, scientific imaging, fluorescence, chemiluminescence, astronomy, pathology, histology, cytometry, surveillance, machine vision and many more demanding applications.

**Key Features Include:**

- Thermoelectric Peltier cooling modules (TEC) for image sensor thermal stability
- Thermal Stability over 20 degree ambient temperature range
- Sony Pregius sensors IMX387, IMX367 and IMX 342
- Outstanding sensitivity with excellent image quality
- GigE Vision with Power over Ethernet and Camera Link outputs available
- 17, 20 and 31 MP resolutions available
- Industrial grade components able to withstand extreme temperatures:  
-30 °C to +75 °C Operating
- High shock and vibration tolerance: 20G (20 – 200 Hz XYZ) / 100G
- Quality manufacturing: ISO 9001:2015
- MIL-STD-810G

Visit: <https://www.imperx.com/cmos-cameras/c5420-t/>, <https://www.imperx.com/cmos-cameras/c5410-t/>,  
<https://www.imperx.com/cmos-cameras/C4420-t/>, <https://www.imperx.com/cmos-cameras/c4410-t/>,  
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**About Imperx, Inc.**

Imperx, Inc. is a leading global designer and manufacturer of superior quality digital imaging products and software. Imperx products serve in aerospace and defense, machine vision, transportation and engineered systems, automation, plus many more industries. For more information, visit Imperx, Inc's website at [www.imperx.com](http://www.imperx.com).

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