



Banpil Photonics, Inc.  
2953 Bunker Hill Lane, Suite 400,  
Santa Clara, CA 95054  
P: 408-282-3628  
[www.banpil.com](http://www.banpil.com)

For Immediate Release

## **Banpil Photonics, Inc. awarded additional patent for multispectral image sensor for ultra-broadband imaging applications**

**SANTA CLARA, California - February 1, 2013** - Banpil Photonics, Inc., a leading company expanding the boundaries of optics and electronics through innovations, today announced the United States Patent and Trademark Office has granted it US Patent 8,357,960 for its multispectral (or broadband) image sensor technology. The Banpil innovation is capable of imaging broad spectral ranges including (0.3 – 3.5  $\mu\text{m}$ ) ultraviolet (UV) light, visible light, near infrared (NIR), and short-wave infrared (SWIR) regions; and ultra-broad (0.3 – 5.5  $\mu\text{m}$ ), which extends imaging into the mid-infrared region (MWIR) and approaches long-wave IR (LWIR).

Banpil's remarkable imaging innovation is achieved in a single monolithic device previously only possible with multiple imagers for specific bands. Its capabilities are compelling because its high sensitivity provides imagery equivalent to black and white TV in total darkness. It enables the replacement of multiple sensors separately used for visible, SWIR, MWIR and even approaching LWIR spectral bands with a monolithic multispectral sensor that greatly improves functionality and makes new applications possible at the same or lower price while also reduced complexity and optimizing size, weight, power and cost (SWAP-C).

"We have extended the capabilities of the Banpil sensor to 5-in-1 band coverage of entire wavelength - near UV, visible, NIR, SWIR, and now MWIR in a single sensor. This breakthrough will enable our customers to perform multiple high value imaging functions, previous only limited to expensive thermal imagers, in an uncooled device at high quality and very cost effectively," noted Banpil CEO, Dr. Achyut Dutta. "We are very excited about the possibilities and proud to continue building our patent portfolio and demonstrating our ultra-broadband technology."

Addressing a target image sensor market estimated at \$8B by 2017, the Banpil sensor is ideal and unique in multi-purpose defense and commercial applications. Commercial and industrial applications include automobile vision enhancement sensors, machine vision for quality control and building thermal inspections, medical imaging applications such as breast cancer diagnosis; enhanced safety monitoring through industrial hazardous imaging and thermal detection in emergency services such as firefighting and policing. Dual-use defense and civilian applications include remote sensing, advanced LIDAR systems, high sensitivity imaging for intelligence, surveillance, and reconnaissance (ISR) assets such as drone (UAV) cameras and night vision.

Sample-level sensor products are available for demonstration. The company welcomes opportunities to work with application developers to explore new or enhanced imaging applications including joint product development, licensing, strategic camera manufacturing partnerships as well as investors.

### **About Banpil Photonics, Inc.**

Banpil Photonics is expanding the boundaries of optics and electronics through innovations. Banpil develops and manufactures next generation multispectral image sensors for automotive & medical imaging systems, security & surveillance, and machine vision applications; high-efficiency energy harvesting devices for energy applications; and low-power, high-speed electrical interconnects for chip-to-chip, chip-to-board, board-to-board, and rack-to-rack applications in high-performance computing and networking. The company has an extensive IP portfolio of these innovations available for licensing. For more information, visit [www.banpil.com](http://www.banpil.com).

CONTACT: Dr. Achyut Dutta, Banpil Photonics, +1-408-282-3628, [adutta@banpil.com](mailto:adutta@banpil.com)