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For Immediate Release

Banpil Photonics, Inc. obtains new patent for an integrated multispectral image sensor system

SANTA CLARA, California - October 31, 2012 - Banpil Photonics, Inc., a leading company expanding the boundaries of optics and electronics through innovations, today announced that the United States Patent and Trademark Office has issued it US Patent 8,174,059 for an integrated multispectral image sensor system. The breakthrough Banpil's image sensor, not only has has a broad spectral range (0.3 – 2.5 µm) covering ultraviolet (UV), visible light, near infrared (NIR), and short-wave infrared (SWIR) regions in a monolithic device, but is also capable of independently generating its own power, and opens the door for exciting new potential applications that could exploits its unique dual capabilities.

Banpil's innovation utilizes the growth and integration of semiconductor nanowries on standard substrates such as silicon, glass, and polymers to create multispectral image sensors and photovoltaic cells. Banpil's nanowire based image sensors and photovoltaic cells provide better quantum efficiency and conversion efficiency due to the wide spectral response compared to standard devices. Moreover, having both sensing and power generation capability enables next generation applications that can operate 24/7 with minimized battery or other power supply overhead. Applications benefits include long-haul drones (UAVs) and remote intelligence, surveillance and reconnaissance (ISR) assets that will be size, weight, power and cost (SWaP-C) optimized with self-powered sensors.

To cover broad spectral ranges such achieved by the Banpil multispectral sensor, conventional devices must fabricate multiple sensors using integration technologies that are unreliable over wide temperature ranges. In addition, those devices have low manufacturing yield and therefore high cost with limited adoption for many applications. "Banpil's monolithic broadband sensor with 4-in-1 band coverage (UV to SWIR) will enable advanced and versatile imaging at high quality and reduced costs," noted Banpil CEO, Dr. Achyut Dutta. "We are excited and motivated to continue developing our patent portfolio and demonstrating our broadband sensor to meet next generation imaging requirements for various important applications."

Banpil's sensor innovation is uncooled, and its performance will not be degraded under wide range of temperature variation. This makes it ideal and unique in multi-purpose industrial applications such as telecommunication, imaging and sensing applications including remote sensing, advanced LIDAR systems, defense and security ISR applications including high sensitivity surveillance cameras and night vision gear. Banpil's multispectral image sensor will also have applications in consumer electronics like smart phones and digital cameras enabled with night vision functionality, industrial applications such as automobile sensors for total driver vision in day and night, machine vision for quality control applications, and medical imaging applications. Collectively, the Banpil multispectral image sensor addresses a target market estimated at $8B by 2017.

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

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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.

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