

# Spectral Masters, Inc.

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**For Immediate Release:**

## **BRONX AGAIN CENTER OF PHOTONIC INNOVATION AS LOCAL COMPANY GRANTED PATENT COVERING REVOLUTIONARY HYPERSPECTRAL COLOR IMAGING SYSTEM**

**BRONX, NEW YORK** – Spectral Masters, Inc. announces that on August 3<sup>rd</sup> the United States Patent and Trademark Office issued patent number 6,771,400 to its CEO for the first ever hyperspectral system and method for capturing graphical images.

“Our technology is the first improvement to capturing colored images since James Clark Maxwell demonstrated the trichromatic color process in 1861,” stated Spectral Masters, Inc. CEO Larry Kleiman. “It is fitting this photonic breakthrough should take place in the Bronx, where Gordon Gould invented the first laser in 1957, only blocks from our office.”

The technology is initially aimed at graphic arts professionals and can be packaged as an image scanner or camera. “By definition and without exception, the hyperspectral system from Spectral Masters is superior to all other color image capturing methods and devices currently available to the graphic arts and prepress communities,” noted Kleiman.

“The patented technology is revolutionary because it redefines standards for image color quality associated with graphical reproduction,” said CEO Kleiman. “With the enormous influx of low cost color scanners and printers saturating the computer market, graphic arts professionals will need new tools to increase productivity, improve quality and differentiate their work from that of the casual user. Initially, our *spectral scanners* and *spectral cameras* give the professional a new advantage, but, over time, as the technology proliferates, all users will benefit.”

“Virtually all color systems available on the market today utilize the trichromatic method pioneered by Maxwell,” said Kleiman. “In this so-called RGB process, colored images are deconstructed and reconstructed by passing the image through unique red, green and blue filters. Because each filter set is unique and there are no standards for the filters or the RGB process, every camera or scanner utilizing the ‘device-dependent’ process sees and captures images differently. The result is an image often requiring extensive craft-oriented post processing and color correction.”

“Our ‘device-independent’ technology is the first and only imaging system to utilize scientifically correct color capture procedures, methods and hardware,” said Kleiman. “Our systems deconstruct the light from

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an image into very narrow or *hyperspectral* bands, measure the intensity of the bands and then process the measurements using algorithms and tables published by the Commission Internationale de l'Eclairage (CIE), the international agency charged with overseeing the physics of color and color perception.”

Until the announcement of patent 6,771,400, the advanced hardware technology employed by Spectral Masters had been limited to selected medical and academic research projects or military and environmental satellite and airborne remote sensing applications.

The systems covered by the patent have spectral ranges that allow them to “see” from the near ultraviolet into the infrared with ample dynamic range to extract the faintest details from any commercially available film stock or live scene. Spatial resolution is user selectable and variable and can exceed 5,000 dpi.

Spectral Masters systems covered by the patent are the only imaging systems able to comply with all relevant scientific standards published by internationally recognized agencies such as CIE, ISO, ASTM, ANSI and ICC and they also adhere to ColorSync, ICM and TIFF trade standards and data formats.

The patented technology may also be applied to applications not directly connected to traditional graphical reproduction, including medical imaging, artwork identification and authentication and image archiving and preservation.

By utilizing advanced spectrophotometric hardware to create systems that comply with CIE methods and specifications for color measurement, Spectral Masters becomes the first company to cross a significant technical threshold. “From this day forward, color scanning and color photography transitions from a craft based upon the skill of trained graphic arts professionals using arcane tools and systems to a process based upon repeatable scientific principles and methods, available to the novice as well as the pro,” stated Kleiman.

About Spectral Masters, Inc. This Bronx, NY based company is engaged in spectrophotometric research and development and owns a subsidiary company engaged in graphical imaging and inkjet printing. It designs advanced spectral imaging systems, creates intellectual property and builds prototypes for graphical, medical, defense and environmental applications.

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