



GENERAL PLASMA INC.™

## *News Release*

---

### **Touch Display Industry Adopts General Plasma Cost Cutting ITO Solution**

**TUCSON, ARIZONA – April 09, 2010** – Today's mobile lifestyle is more efficient than ever. With a swipe of a finger the day's news is instantly downloaded to a mobile phone; a few taps on a screen allows live turn by turn directions to any destination on earth and a virtual on screen keyboard enables a live chat from the comfort of the couch.

Driven by advances in human interface technology, touch sensitive screens have experienced a revolution in recent years and can be found in products ranging from full size computer monitors to operating room monitoring systems to cellular phones. As more and more product offerings begin to adopt this interactive technology, industry research firm DisplaySearch predicts the demand for touch screen displays is expected to increase by over 20% this year alone. As manufacturers plan to deliver increased touch panel capacity in tandem with the improving global economic climate, they are preparing to do so while decreasing production costs – aiding even quicker adoption of touch screen technology by further reducing costs to the end consumer.

The manufacture of a touch screen display panel is a multi-part process requiring the very precise application of thin layers of materials. One of the most expensive components of this process, the application of a layer known as transparent conductive oxide (TCO) enables a device to both sense human touch and project an image on the display screen. At only 10's of nanometers thick (1/10,000<sup>th</sup> the thickness of a sheet of paper), TCO has traditionally been a significant cost in the production of iPhones, ATM monitors and other touch sensitive devices. Recognizing this, General Plasma, Inc. has developed a novel approach to the application of the TCO layer that significantly reduces the cost of this vital component.

General Plasma has found that the key to decreasing production costs is to more efficiently utilize expensive coating materials that make up the TCO layer and reduce the thickness of TCO required in the device. General Plasma's Mov-Mag™ thin film sputtering solution addresses these critical issues in two ways. First, the advanced magnetic plasma design improves the properties of the deposited film giving the film higher electrical conductivity at lower thickness. Second, the advanced proprietary magnet array oscillation improves material utilization to above 60%. In comparison, conventional sputtering technologies are limited to 30% material utilization and a conductivity that is one half that achievable with the Mov Mag™.

Recognizing the revolutionary cost saving TCO solution offered by General Plasma, a leading Asian equipment manufacturer has turned to the technology as they expand capacity to meet increasing touch panel demand.



GENERAL PLASMA INC.™

---

John Madocks, President of General Plasma is excited to work with leading manufacturers in the adoption of this new technology stating “General Plasma’s TCO sputtering solution, which has been in development for two years, will alter the cost structure of the display industry’s products and undoubtedly will further expand smart display volume”.

Bruce Lee, President of LNB, General Plasma’s Korean distributor, is pleased to be representing GPI’s innovative products to the display industry. Bruce confirms “GPI’s products, which have been offered to the display industry for only about one year, are new to the TCO market. Touch screen display production is a leading application in Korea and GPI’s products have offered very significant results. End customers and system manufacturers believe that GPI’s products are the solution for their applications and are very satisfied with GPI’s technology, product quality and aggressive customer support. LNB is sure that GPI will be a household name in this market in the near future”.

Contact: Mark George, Director of Research, General Plasma, Inc.

520-882-5100 • [mgeorge@generalplasma.com](mailto:mgeorge@generalplasma.com) • 546 E 25<sup>th</sup> St., Tucson, AZ 85713