A New Range of Interactive Touch Displays and Multitouch Tables
Ideum recently introduced first-of-their-kind 55” and 65” 4K Ultra High Definition (UHD) touch wall and touch table displays with 3M™ projected capacitive (PCAP) multitouch technology. This lineup has been extended and now includes 43” and 49” 4K UHD displays with 3M™ touch. These displays provide a new range of sizes with unbeatable pixel density and a new generation of 3M™ touch that is more responsive and supports 80 simultaneous touch points.

Ideum displays are tough enough for the most demanding, high-traffic public spaces. They are made in the USA out of aircraft-grade aluminum (never plastic). Ideum touch walls can include optional integrated Intel i7 Windows systems. These displays are also used in Ideum’s line of turnkey, integrated multitouch tables, which are available in coffee table, drafting table, and flat configurations. Ideum’s displays and tables are used in museums, universities and schools, laboratories, corporate spaces, tradeshows, and retail settings around the world.

Introduction

This white paper is an update to “Introducing the new 55” and 65” 4K UHD projected capacitive touch displays from Ideum with 3M™ multitouch technology” published in April, 2016.
Ideum offers industry-leading 3M™ PCAP touch technology. In contrast to inferior touch solutions available on the market, Ideum offers bezel-free displays which are impervious to interference from light, highly accurate, reliable, and responsive.

Ideum’s new multitouch displays support up to 80 simultaneous touch points for natural multiuser interaction. Each display integrates 3M™ technology, an ultrafine metal mesh conductor design, which eliminates moiré and sparkle issues that are frequently found in less refined PCAP systems. The ultrafine mesh is just 3 microns wide, creating an invisible touch system that allows users to see all the incredible, vibrant detail that a 4K UHD display can provide.

The 3M™ PCAP technology employed by Ideum has several advantages over other touch systems. Because it is a conductive surface, only human touch and other conductive materials and implements such as styluses register as touches, and the surface is not affected by lighting conditions. Optical systems that employ IR sensors or cameras often set off unintended touch events when in contact with non-conductive objects like a sleeve, and can be adversely affected by brightly-lit environments.

The 3M™ PCAP screens have no bezel, which not only results in a sleeker design, but is also critical for multitouch table use. A large bezel can interfere with user interaction and cause issues with care and cleaning, particularly in busy public settings. All of Ideum’s 43”, 49”, 55” and 65” touch tables use 3M™ PCAP technology exclusively.

Projected Capacitive Touch (PCAP)

Ultra High Definition (UHD)

The arrival of UHD (also known as 4K) screens is a major development for large-scale interactive displays. The impact of the four-fold improvement over HD in resolution is particularly critical to applications that engage users at just an arm’s length away. Resolution is measured by the number of individual pixels displayed. A 4K UHD display is 8.3 megapixels at 3840 wide by 2160 pixels tall. This is four times as many pixels as are found in an HD monitor, which has fewer than 2.1 megapixels at 1920 by 1080.

For large displays, the concept of “pixel density” is a critical factor in determining image quality. Larger HD displays have a lower pixel density, which lowers the quality and detail of the displayed image. Displays with UHD resolution maintain a higher pixel density at larger display sizes, which results in a crystal-clear, non-pixelated image. In the slightly smaller, new 43” and 49” displays, the pixel density is tremendous, giving those displays a “retina-like” quality. All of Ideum’s displays now are available with UHD resolution screens.
For museums, this means high-resolution artwork, historic artifacts, and scientific images can be shown with all of their vivid detail. For multiuser applications, more pixels mean that design elements intended for multiple users can appear more crisp. The arrival of robust 3M™ touch technology paired with 4K UHD displays yields a cutting-edge combination of fluid, responsive touch support and vivid, high-resolution images.

The ultrafine mesh inside the 3M™ projected capacitive screen is only 3 microns, or .000108 inches.

The Toughest Cases and Touch Tables

Those who work on the museum floor, manage retail, or administer other public spaces know the importance of hardened, durable exhibits and case work. Ideum has more than 16 years of experience with museums around the world, and our goal is to build tough products that require no maintenance, even in busy public spaces. Our UHD multitouch displays have all-aluminum cases with lockable port access. The 3M™ glass of the display is strengthened, anti-stiction, non-reflective, and 4mm thick.

Engineered and built in the USA, the custom cases for Ideum’s UHD multitouch displays are manufactured with aircraft-grade aluminum and covered with a tough powder coat finish. Ideum avoids plastic and other less-durable materials in its manufacturing process in order to provide the most long-lasting, maintenance-free final product.

Our multitouch table bases have lockable access and provide turnkey operation. A user plugs the unit into a standard wall outlet and switches on the unit with simple push-button start. The large touch tables ship with Windows 10 standard (with options for 8.1, or 7); they will soon support Android at 4K.

Ideum multitouch tables are outfitted with the latest in high-quality computer components. Each 43”, 49”, 55”, and 65” system has the latest i7 Intel™ processor and the latest NVIDIA™ full-size graphics card, currently the GTX 1070 (upgradeable to the 1080). They come with 16GB of RAM (upgradeable to 32GB), built-in RFID, and a variety of storage options. Ideum can customize its systems by adding (or removing) components, provide standard products in a variety of colors, and even build completely custom configurations.
Ideum's multitouch displays are the first to the market with 4K UHD and 3M™ touch technology. Ideum continues to lead the way in quality and durability as both a manufacturer of cutting-edge hardware products, and as a small design shop developing high-end custom installation solutions. With the arrival of the new 43” and 49” models, a new range of display and pricing options are now available.

Summary

Ideum's new all-in-one Portrait model is the world's first touch and motion vertical kiosk. Along with state-of-the-industry 3M touch technology, it can also be outfitted with a Microsoft Kinect. The Portrait has an i7 computer with an NVIDIA™ graphics card built into its slim base. It comes standard with 16GB RAM, a 500GB Solid-State Drive (SSD) and RFID.
Presenter Touch Walls

All of our models sized 43" to 65" come with a 4K UHD display with 3M™ Touch Technology. The Presenter can be hung vertically or horizontally and can be purchased with an optional lockable computer system that fits behind the unit between the standard VESA mount brackets. Mounting hardware is included with each Presenter.
Multitouch Table Models at a Glance

All of Ideum’s touch tables have push-button operation and come standard with Windows 10. Ideum has been building and selling multitouch tables worldwide since 2009.

Duet Coffee Table
The world’s first UHD 4K Multitouch Coffee Table is packed with power. The attractive Ideum Coffee Table comes with an Intel™ i7 computer with an NVIDIA GTX 1070 graphics card built into its slim base. It comes standard with 16GB RAM, a 1TB Solid-State Drive (SSD) and RFID. It can be upgraded to 32GB RAM, dual 1TB SSD drives, and an NVIDIA GTX 1080 graphics card. Available with a 43”, 49”, or 55” 4K UHD multitouch display.

Platform
The Platform is Ideum’s most popular multitouch table and it is perfect for multiuser applications in public spaces such as museums. It has an Intel™ i7 computer with an NVIDIA GTX 1070 graphics card built into its slim base. The Platform touch table comes standard with 16GB RAM, a 1TB Solid-State Drive (SSD) and RFID. It can be upgraded to 32GB RAM, dual 1TB SSD drives, and an NVIDIA GTX 1080 graphics card. The Platform is available with the full range of Ideum 4K UHD multitouch displays from 43” to 65”.

Pro
The Pro series is perfect for research labs, museums, public spaces, and other demanding environments. The table features a full-sized Intel™ i7 workstation computer inside with an NVIDIA GTX 1080 graphics card, an audio amp and speakers, and RFID. It comes standard with 16GB RAM, a dual 1TB SATA III hard drive, and RFID. The optional Pro Lab configuration provides up to 24TB of removable storage and 32GB RAM. Available with a 49”, 55”, or 65” 4K UHD multitouch display.

Drafting
A modern take on the classic drafting table, this model is ideal for single or dual-user applications, especially in professional design or business settings, as well as public spaces. It has an Intel™ i7 computer with an NVIDIA GTX 1070 graphics card built into its slim base. The Drafting Touch Table is ready to handle any design or 3D program with its standard configuration with 16GB RAM, a 1TB Solid-State Drive (SSD) and RFID. It can be upgraded to 32GB RAM, dual 1TB SSD drives, and an NVIDIA GTX 1080 graphics card. Available with the full range of Ideum 4K UHD multitouch displays from 43” to 65”.

For sales & rentals, contact us at sales@ideum.com, or call (505) 792-1110 ext 1.
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