



# uWand 'remote touch'

A touch screen experience for Smart TVs through the remote control



**PHILIPS**  
sense and simplicity

The Smart TV controller that revolutionizes interaction and revenue opportunities

# uWand 'remote touch'

Adding sophistication to the lean-back user experience

uWand is a new 'remote touch' technology from Philips. When embedded in remote controls it gives users fluid and accurate direct pointing and 3D gesture control on multiple electronic devices – TVs, set-top boxes, DVD/Blu-ray players, PCs or games consoles. Unlike controls based on touchpads and gyroscopes, it is an inherently intuitive experience for point-and-click control. In product placement trials, 77% of users preferred uWand to traditional remote controls. uWand's direct pointing was also preferred by 75% compared to the of alternative technologies such as gyroscopes, touchpads and trackpads.



# A new TV experience

## Next generation interaction

On the PC, complex interactions are easy to maneuver using a mouse and keyboard but next generation Smart TV services need a new approach to maintain lean-back user control. To meet consumer expectations for an intuitive experience on the TV, a new class of user interface technology is required. Traditional remote controls restrict the potential for interaction with electronic program guides, and severely limit the potential of added value services like gaming, vast VoD libraries and web-based applications. The new generation of TVs need a new generation of remote, one that is simple.

## A hybrid controller that suits all interactions on Smart TVs

uWand technology, complemented with existing input technologies, makes consumers' lives very easy. A remote touch primary interface incorporated with a QWERTY keyboard for easy text input, makes every interaction possible from the comfort of the sofa, from flicking through a VoD library to engaging in motion game control.

uWand technology brings a 'heads up' touch screen experience to Smart TVs. Users stay focussed on the big screen when navigating content or playing games from the Smart TV device. From a business model point of view this is preferred to users moving their attention to the content on the companion device.



## Easy to implement

The technology itself is extremely easy to implement. The uWand technology can be incorporated into your own industrial design. With the uWand SDK, the cursor and gesture control elements can be enabled in the Smart TV operating systems and the user interfaces.

## How it works

Philips' uWand technology, a complete firmware solution, incorporates two primary elements:

- An infrared camera embedded in a remote control device that could have as few as three buttons
- A reference point near or on the TV from which the camera can calculate its position

The uWand technology is extremely simple in concept. The camera continuously monitors the remote's position in relation to the target screen. The position co-ordinates (x, y, z and rotation), and together with button selections, are transmitted via a wireless link (bluetooth, infrared or RF) from the remote to the target device which, in turn, makes the information available to the relevant application (e.g. TV EPG, game, picture library etc.).



- Precise cursor control for lean-back interaction
- Selection and manipulation of on-screen objects in three dimensions
- Control of menus, games and interactive services within minimal hand movement

“We believe that, for TV's with internet options and sophisticated interfaces, remote controls with pointing technology and direct pointing will be more popular with users than those with relative pointing.”

Source: DisplayCast ATV by Meko Ltd., July 2010

**Option 1:  
Peripheral unit**



**Option 2:  
Integrated in TV/monitor**



“We believe a more intuitive remote control will help owners of Smart TVs solve the navigation and content discovery problem and simplify the search for apps within widget stores.”

Source: Strategy Analytics, August 2011





# The business benefits

## New interactions for new revenue opportunities

uWand technology optimizes the user experience by providing a natural 'remote touch' interface to existing and next generation TV services. Users operate the control while remaining focused on the screen, the on-screen cursor appears exactly where the remote is pointed, and only subtle gestures are required to operate menus and manipulate objects.

**The result is a user interface that maximizes the revenue potential of existing services and opens the door to new revenue generating opportunities.**

## uWand increases service use

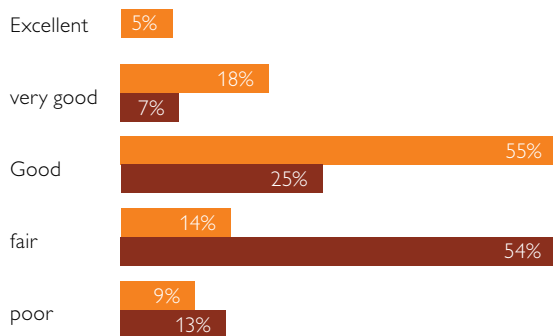
In product placement tests for interactive television uWand dramatically improved user satisfaction. Despite the TV service having been originally designed for use with a traditional remote control, those rating the service "good" to "excellent", moved from 32% to 72% when a prototype TV remote using uWand technology was introduced.

The improvement in satisfaction was reflected in service use. Existing users of video on demand (VoD) and gaming on demand (GoD) increased their consumption of those services by 17% and 20% respectively and a significant number of new users started using these services.

## Realizing the potential of interactive gaming on Smart TVs

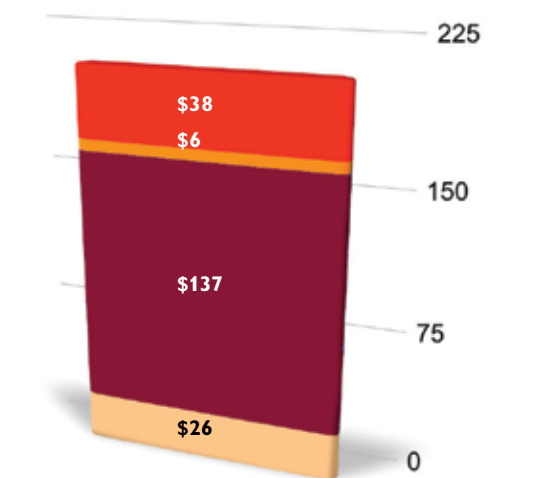
With 40% of Smart TV owners playing games and nearly half of these users (45%) spending money on gaming (by buying virtual goods and casual games), this offers significant new revenue opportunities. For casual gamers, a significant proportion of the total market, the uWand technology negates the need for a dedicated games console. Games may be embedded on the device itself, or network delivered, to target millions of consumers with an entirely new and absorbing television experience. No other controller technology allows direct aiming within a game or such natural gaming gestures. That is why leading game engine platforms have selected uWand as their preferred remote control technology.

### User satisfaction for connected TV service

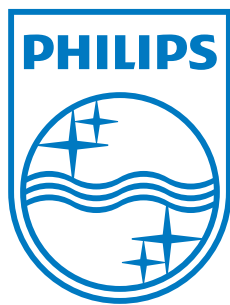


- Connected TV with uWand
- Connected TV with traditional remote control

### uWand increases ARPU



- Gaming revenue with traditional remote
- VoD revenue with traditional remote
- Additional gaming revenue with uWand
- Additional VOD revenue with uWand



[www.uWand.com](http://www.uWand.com)

[sales.uWand@philips.com](mailto:sales.uWand@philips.com)