



- 6 inch - desktop
- Capacitive touch
- Glass overlay

## 6" DESKTOP TOUCHPAD WITH 8 SHORTCUT KEYS

Using years of knowledge/experience gained from developing industrial trackball technology, Cursor Controls Ltd have developed a range of advanced touchpad solutions. The touchpads provide smooth and precise cursor control using the latest and most advanced touch sensing technology and are designed for use in the most extreme environments.

The TPD Series desktop touchpad provides both conventional X and Y-axis cursor movement with plug-and-play, multi-finger gesture support for enhanced user interaction. The mutual-capacitance based tracking engine combines the benefits of solid state sensing (no moving parts) with the precision, functionality and performance associated with the Cursor Controls product range. The design allows for easy cleaning and decontamination, ensuring continued optimum performance and operation under the harshest of conditions. The unit has been designed to be a freestanding desktop device and optimises desk space when compared to a mouse.

### FEATURES

- Solid state sensing technology – capacitive touch sensing tracking engine
- Output: USB
- IP65 sealing
- Haptic and audible feedback (function specific)
- Multi-finger gesture support
- 8 shortcut keys - capacitive touch
- Smooth operation in rugged environments
- Wired USB cable provides high reliability and avoids the need for batteries
- Tolerant to moisture, water and liquid contaminants
- Custom feature button configurations / overlays available

### APPLICATIONS

- Industrial consoles
- Medical systems
- Marine systems
- Sound and lighting desks
- Video editing consoles
- Custom keyboard applications

### MECHANICAL SPECIFICATIONS

|                        |  |
|------------------------|--|
| Dimensions             | 145mm x 111mm x 15mm                   |
| Weight                 | ~200 grams                             |
| Touch Surface Material | Glass (anti-fingerprint & anti-glare). |
| Touch Surface Colour   | Metallic grey - Pantone PMS 10392      |
| Case Material          | Polycarbonate                          |
| Case Colour            | RAL 9005 Black                         |

### OPERATIONAL SPECIFICATIONS

|                           |                            |
|---------------------------|----------------------------|
| Motion Detection Method   | Mutual capacitance sensing |
| X/Y Position Reporting    | Relative                   |
| Sample Rate               | Up to 100 samples/sec.     |
| Touchpad active area size | 130 x 80 mm                |

### ELECTRICAL SPECIFICATIONS

|                         |   |
|-------------------------|---|
| Protocol                | USB   |
| Supply Voltage          | 4.40 – 5.25V  |
| Supply Current          | 60mA typical – default resolution setting, feedback idle<br>300mA peak – max resolution setting, feedback effects playing |
| Resolution (X, Y)       | 960 x 720 counts  |
| Output Connector        | USB "A" type connector supplied with 2 metre cable  |
| Mating Output Connector | Standard USB "A" type socket  |

## ENVIRONMENTAL SPECIFICATIONS

|                       |   |
|-----------------------|---|
| Operating Temperature | 0° to 70°C  |
| Operating Humidity    | 5 to 95% relative humidity  |
| Storage Temperature   | -40° to +85°C   |
| Vibration             | 2g, 10-500Hz, 1 octave/min, 10 sweep cycles (IEC 60068-2-6)   |
| Operating Shock       | 15g/11ms, ½ sine, 3 shocks in +ve and -ve direction, all 3 axes, IEC 60068-2-27)                          |
| Sealing Level         | IP65  |
| ESD                   | 15kV air-discharge and 8kV contact discharge (IEC 61000-4-2)  |
| EMC                   | Radiated immunity - limits according to level 3 of IEC 61000-4-3<br>Radiated emissions to EN55022 class B |

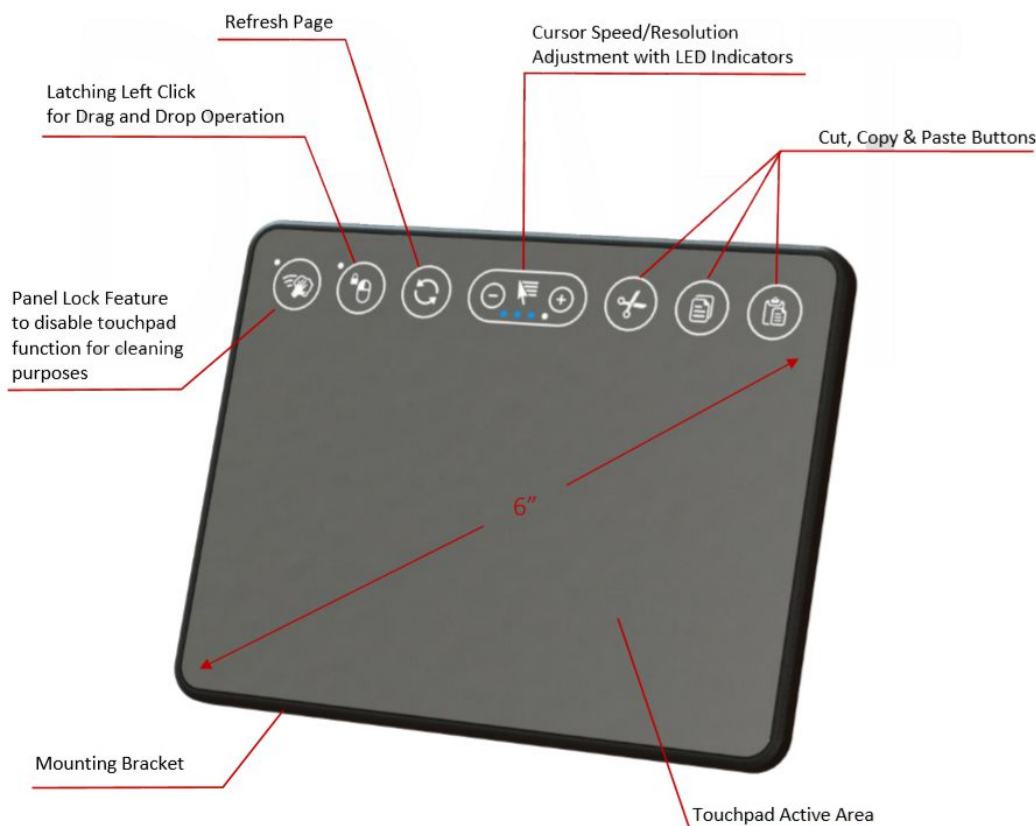
## OPERATING SYSTEM COMPATIBILITY

USB Windows, Linux, Mac OS, and Android. Fully compliant with USB 2.0 framework (chapter 9) & HID specifications

## TOUCHPAD FEATURES

The TPD Series touchpad module includes the following features/technologies.

- **Touchpad Technology:** The 6-inch touchpad active area provides both conventional X and Y-axis cursor movement with plug-and-play, multi-finger gesture support for enhanced user interaction.
- **Shortcut keys:** 8 x shortcut keys are located at the top of the touchpad module. These utilise capacitive touch sensing technology and incorporate frequently used functions such as Cut, Copy & Paste, cursor resolution adjustment etc., as well as a panel lock feature to facilitate cleaning/decontamination of the device.
- **Enclosure:** The touchpad is enclosed within a plastic case which, combined with an overmolded cable, offers an IP65 sealing solution and added protection against potential impact.












## Cursor Tracking Mode

The touchpad includes an intuitive **Ballistic Tracking** algorithm to provide increased cursor resolution when tracking fast, whilst retaining the native resolution (960 x 720 counts) for tracking accurately at slow speeds.

The touchpad also includes an **Inertia Tracking** algorithm which applies inertia to the X and Y axis, allowing cursor movement or scroll to continue in the intended direction after the finger(s) is lifted from the touchpad surface, after which the cursor will naturally slow to a stop.

## GESTURE OPERATIONS

The touchpad incorporates an in-built gesture recognition engine designed to enhance user experience and increase the overall efficiency of user interaction with a host system. Use of gesture control enables the user to access frequented functions such as button clicks, scrolling and zooming by means of highly intuitive multi-finger operations. See table below for details on the available gesture actions.

| GESTURE ACTION   | FUNCTION   |
|--|--|
|  <b>Single-Finger Tap</b>           | Left mouse button click<br>Double/triple tap supported   |
|  <b>Two-Finger Tap</b>              | Right mouse button click<br>Double/triple tap supported  |
|  <b>Three-Finger Tap</b>            | Middle mouse button click<br>Double/triple tap supported |
|  <b>Two-Finger Vertical Drag</b>    | Scroll Up/Down   |
|  <b>Two-Finger Horizontal Drag</b> | Scroll Left/Right <sup>1</sup>                           |
|  <b>Two-Finger Splay</b>          | Zoom In <sup>1</sup>                                     |
|  <b>Two-Finger Pinch</b>          | Zoom Out <sup>1</sup>                                    |
|  <b>Three-Finger Swipe Left</b>   | Back <sup>1</sup>  |
|  <b>Three-Finger Swipe Right</b>  | Forward <sup>1</sup>                                     |

1. Horizontal scroll and zoom functions are dependent on application support.

## CURSOR SPEED / RESOLUTION SETTINGS

The touchpad allows the user to increase or decrease the cursor resolution as required across 8 levels, indicated by the LED indicators underneath the + and - buttons. The table here below provides details of the resolution provided by each level.

| Level                       | Cursor Resolution |      |
|-----------------------------|-------------------|------|
|                             | X                 | Y    |
| 0                           | 360               | 240  |
| 1                           | 480               | 360  |
| 2                           | 720               | 540  |
| 3 (Default factory setting) | 960               | 720  |
| 4                           | 1200              | 900  |
| 5                           | 1440              | 1080 |
| 6                           | 1680              | 1260 |
| 7                           | 1920              | 1440 |



## TOUCHPAD FEEDBACK

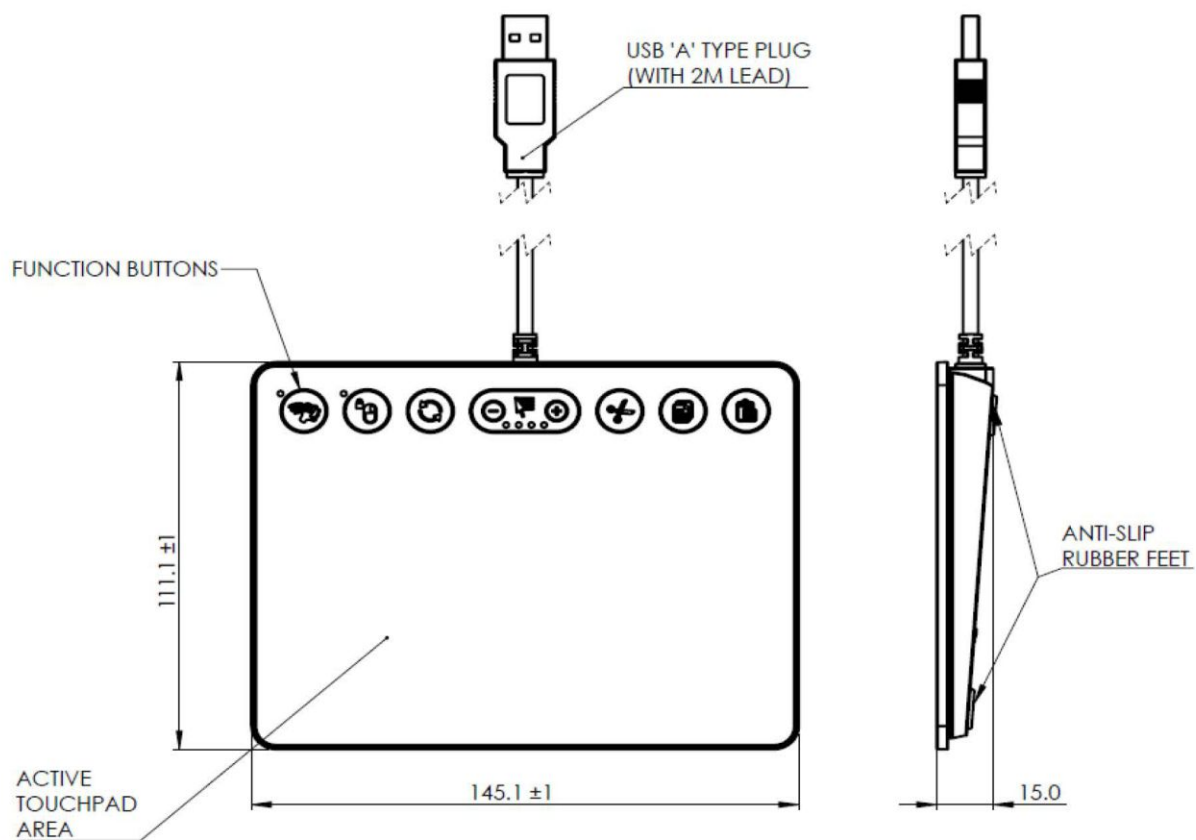
The touchpad features haptic and audible feedback to provide a perceptible response to user interaction events. The table here below details the default event mapping for user feedback;

| Event  | Haptic Feedback | Audio Feedback |
|--|-----------------|----------------|
| Finger Taps (e.g. Left Mouse Click)                | No              | Yes            |
| Gesture Operations (e.g. Two finger Vertical Drag) | Yes             | Yes            |
| Feature Buttons                                    | Yes             | Yes            |
| Active Area Edge Detection                         | Yes             | No             |

## PANEL LOCK FEATURE

The panel lock feature allows the touchpad to be locked / disabled for cleaning purposes. This can be achieved by tapping and holding the panel lock button for 3 seconds to toggle ON or OFF. The panel lock LED will remain illuminated whilst the touchpad is locked.

## DIMENSIONAL DRAWING



Dimensional drawing specifies factory default orientation. All dimensions are in mm unless otherwise stated. Tolerances +/- 0.2mm unless otherwise stated. Please note that a STEP model is available on request. Please contact your local sales office for more information

## ORDER INFO

6 inch desktop touchpad - Glass overlay  
incl. output cable

**TPD-55A326**

### MANUFACTURER

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