

Head Office:B703,Building 1,Tianan Cyber Park,Huang Ge North Road,Longcheng Subdistrict,Long Gang District,ShenZhen,Guang Dong, P.R.China Factory ADD.:Floor 7, Building S8, Fenggang Tianan Cyber Park, No. 208 Fenggang Section, Dongshen Road, Fenggang Town, DongGuan, Guang Dong, P.R. China Tel:+86 755 89239859,89230460,85232807

Fax:+86 755 89312576

E-mail:info@key-tek.cn,sales01@key-tek.cn Website:www.key-tek.cn,www.rugged-key.com

Model NO .: K-TEK-B110-50-MTB-AVB-ML-BT

**DESCRIPTION:** IP65 static vandal proof trackball with 50.8mm military grade mechanical trackball module with black hardened resin ball, with 200~2000DPI resolutions, with sealed 3 metal mouse buttons for left and right clicking, middle scrolling button with ball rolling. 1.5 mm top stainless plate and threaded bolts for top panel mounting solution, high quality scratch-proof black titanium electroplated on front stainless steel and optional keys to withstand salt spray, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity), built to meet -40°C to +75°C for working temperature and strong anti-vibration features.

DIMENSIONS: 110.0mm x 126.0mm (front panel)



## **APPLICATIONS:**

MEDICAL: lab, hospital, clinic, dental, such as carts, diagnostic equipments, operation rooms, dialysis centers etc; MATERIAL HANDLING: mobile keyboard, data entry, assembly line etc

MILITARY: Army, Navy, Air force

INDUSTRIAL: Industrial automation, pharmaceutical, oil and gas, food and beverage, clean or dirty manufacturing environments, warehouses

MARINE: ship, boat, vessel, navigation consoles etc.

OTHER INDUSTRIES





Head Office:B703,Building 1,Tianan Cyber Park,Huang Ge North Road,Longcheng Subdistrict,Long Gang District,ShenZhen,Guang Dong, P.R.China Factory ADD.:Floor 7, Building S8, Fenggang Tianan Cyber Park, No. 208 Fenggang Section, Dongshen Road, Fenggang Town, DongGuan, Guang Dong, P.R. China Tel:+86 755 89239859,89230460,85232807

Fax:+86 755 89312576

E-mail:info@key-tek.cn,sales01@key-tek.cn Website:www.key-tek.cn,www.rugged-key.com

## Main Features:

- 1. Emulates most popular mice uses existing mouse driver and mouse software Interfaces for most workstations and computers.
- 2. All Metal Mechanicals provide for rugged, smooth, long lasting and no noisy operation.
- 3. Rate Sensitive Dynamic Resolution provides for accelerated movement of the cursor when the ball is moved fast
- 4. Retaining one-pixel positioning accuracy when the ball is moved slowly.
- 5. Can be mounted horizontally, and vertically or any directions.
- 6. No metal bearings inside, operation is very smooth, and easy without any noise.

## **Specifications:**

Keys3 keysKey travel1.40mmActuation Force2.5N±0.2NTrackball50mm black resin mechanical trackball with +400DPI resolutionsTrackball lifespan> 2 millions scrollingProtection levelIP65 staticG.W.0.6KGsELECTRICAL DATACurrent RatingDC +50½5%Current Rating17mAEMC StandardEN 55032:2015, EN 55035:2017Lifespan> 5 yearsInterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cos-To be confirmed).ENTRONMENTAL ADAPTABILITY40°C to +75°COperating temperature40°C to +75°CStorage temperature40°C to 04512-6Saline mist96 hours, LEC 60512-6Damp heat test at +40°C21 days, LEC 60512-6Dry heat test at +85°C10 days, LEC 60512-6Protection LevelIP65 static	MECHANICAL DATA	
Actuation Force2.5N±0.2NTrackball50mm black resin mechanical trackball with +400DPI resolutionsTrackball lifespan> 2 millions scrollingProtection levelIP65 staticG.W.0.6KGsELECTRICAL DATASupply VoltageDC +5V±5%Current Rating17mAEMC StandardEN 55032:2015, EN 55035:2017Lifespan> 5 yearsInterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITY40°C to +75°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Darp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, Licu 502-6RELABILITYReLABILITYRoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, satt mist, vibration, fungus, humidity)	Keys	3 keys
Trackball50mm black resin mechanical trackball with +400DPI resolutionsTrackball lifespan> 2 millions scrollingProtection levelIP65 staticG.W.0.6KGsELECTRICAL DATADC +5V±5%Supply VoltageDC +5V±5%Current Rating17mAEMC StandardEN 55032:2015, EN 55035:2017Lifespan> 5 yearsInterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).EVIRONMENTAL ADAPTABILITY40°C to +75°COperating temperature44°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYROHS, CE, FCC, MIL-STD-810F (wide temp=tature, shock, salt mist, vibration, fungus, humidity)	Key travel	1.40mm
Trackball lifespan   > 2 millions scrolling     Protection level   IP65 static     G.W.   0.6KGs     ELECTRICAL DATA      Supply Voltage   DC +5V±5%     Current Rating   17mA     EMC Standard   EN 55032:2015, EN 55035:2017     Lifespan   > 5 years     Interface   USB, PS2     Cable length   Standard 2.0m, customized length available     OS   All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).     EVIRONMENTAL ADAPTABILITY   40°C to +75°C     Operating temperature   44°C to +85°C     Operating RH   100%     Atmospheric pressure   60-106Kpa     Saline mist   96 hours, IEC 60512-6     Damp heat test at +40°C   21 days, IEC 60512-6     RELIABILITY   To days, IEC 60512-6     RELIABILITY   Rodersure, shock, salt mist, vibration, fungus, humidity)	Actuation Force	2.5N±0.2N
Protection levelIP65 staticG.W.0.6KGsELECTRICAL DATASupply VoltageDC +5V±5%Current Rating17mAEMC StandardEN 55032:2015, EN 55035:2017Lifespan> 5 yearsInterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITYOperating temperature40°C to +75°CStorage temperature45°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Darp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYRoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Trackball	50mm black resin mechanical trackball with +400DPI resolutions
G.W.0.6KGsELECTRICAL DATASupply VoltageDC +5V±5%Current Rating17mAEMC StandardEN 55032:2015, EN 55035:2017Lifespan> 5 yearsInterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITY40°C to +75°COperating temperature40°C to +75°CStorage temperature40°C to 00%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Darp heat test at +40°C21 days, IEC 60512-6Dry heat test at +45°C10 days, IEC 60512-6RELIABILITYReLIABILITYRoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Trackball lifespan	> 2 millions scrolling
ELECTRICAL DATA     Supply Voltage   DC +5V±5%     Current Rating   17mA     EMC Standard   EN 55032:2015, EN 55035:2017     Lifespan   > 5 years     Interface   USB, PS2     Cable length   Standard 2.0m, customized length available     OS   All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).     ENVIRONMENTAL ADAPTABILITY   -40°C to +75°C     Operating temperature   -40°C to +75°C     Storage temperature   -45°C to +85°C     Operating RH   100%     Atmospheric pressure   60-106Kpa     Saline mist   96 hours, IEC 60512-6     Damp heat test at +40°C   21 days, IEC 60512-6     Pry heat test at +40°C   10 days, IEC 60512-6     RELIABILITY   RelLABILITY     RoHS, CE, FCC, MIL-STD-810F (wide temp=ture, shock, salt mist, vibration, fungus, humidity)	Protection level	IP65 static
Supply VoltageDC +5V±5%Current Rating17mAEMC StandardEN 55032:2015, EN 55035:2017Lifespan> 5 yearsInterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITYOperating temperature-40°C to +75°CStorage temperature-45°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYRoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, satt mist, vibration, fungus, humidity)	G.W.	0.6KGs
Current Rating17mAEMC StandardEN 55032:2015, EN 55035:2017Lifespan> 5 yearsInterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITYOperating temperature-40°C to +75°CStorage temperature-40°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYRoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	ELECTRICAL DATA	
EMC StandardEN 55032:2015, EN 55035:2017Lifespan> 5 yearsInterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITYOperating temperature-40°C to +75°CStorage temperature-45°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYROHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Supply Voltage	DC +5V±5%
Lifespan> 5 yearsInterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITYOperating temperature-40°C to +75°CStorage temperature-45°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYROHS, CE, FCC, MIL-STD-810F (wide temp=-ture, shock, salt mist, vibration, fungus, humidity)	Current Rating	17mA
InterfaceUSB, PS2Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITYOperating temperature-40°C to +75°CStorage temperature-45°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYRoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	EMC Standard	EN 55032:2015, EN 55035:2017
Cable lengthStandard 2.0m, customized length availableOSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITYOperating temperature-40°C to +75°CStorage temperature-45°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYROHS, CE, FCC, MIL-STD-810F (wide temp=ture, shock, salt mist, vibration, fungus, humidity)	Lifespan	> 5 years
OSAll Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).ENVIRONMENTAL ADAPTABILITYOperating temperature-40°C to +75°CStorage temperature-45°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYRoHS, CE, FCC, MIL-STD-810F (wide temp=ature, shock, salt mist, vibration, fungus, humidity)	Interface	USB, PS2
ENVIRONMENTAL ADAPTABILITY   Operating temperature -40°C to +75°C   Storage temperature -45°C to +85°C   Operating RH 100%   Atmospheric pressure 60-106Kpa   Saline mist 96 hours, IEC 60512-6   Damp heat test at +40°C 21 days, IEC 60512-6   Dry heat test at +85°C 10 days, IEC 60512-6   RELIABILITY RoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Cable length	Standard 2.0m, customized length available
Operating temperature-40°C to +75°CStorage temperature-45°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYROHS, CE, FCC, MIL-STD-810F (wide temp=ture, shock, salt mist, vibration, fungus, humidity)	OS	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).
Storage temperature-45°C to +85°COperating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYRoHS, CE, FCC, MIL-STD-810F (wide tempe-ture, shock, salt mist, vibration, fungus, humidity)	ENVIRONMENTAL ADAPTABILITY	
Operating RH100%Atmospheric pressure60-106KpaSaline mist96 hours, IEC 60512-6Damp heat test at +40°C21 days, IEC 60512-6Dry heat test at +85°C10 days, IEC 60512-6RELIABILITYRoHS, CE, FCC, MIL-STD-810F (wide temp=ture, shock, salt mist, vibration, fungus, humidity)	Operating temperature	-40℃ to +75℃
Atmospheric pressure 60-106Kpa   Saline mist 96 hours, IEC 60512-6   Damp heat test at +40°C 21 days, IEC 60512-6   Dry heat test at +85°C 10 days, IEC 60512-6 <b>RELIABILITY</b> RoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Storage temperature	-45℃ to +85℃
Saline mist 96 hours, IEC 60512-6   Damp heat test at +40°C 21 days, IEC 60512-6   Dry heat test at +85°C 10 days, IEC 60512-6   RELIABILITY   RoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Operating RH	100%
Damp heat test at +40°C 21 days, IEC 60512-6   Dry heat test at +85°C 10 days, IEC 60512-6   RELIABILITY   RoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Atmospheric pressure	60-106Кра
Dry heat test at +85°C 10 days, IEC 60512-6   RELIABILITY RoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Saline mist	96 hours, IEC 60512-6
RELIABILITY RoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Damp heat test at +40℃	21 days, IEC 60512-6
RoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	Dry heat test at +85℃	10 days, IEC 60512-6
	RELIABILITY	
Protection Level IP65 static	RoHS, CE, FCC, MIL-STD-810F (wide temperature, shock, salt mist, vibration, fungus, humidity)	
	Protection Level	IP65 static





Head Office:B703,Building 1,Tianan Cyber Park,Huang Ge North Road,Longcheng Subdistrict,Long Gang District,ShenZhen,Guang Dong, P.R.China Factory ADD.:Floor 7, Building S8, Fenggang Tianan Cyber Park, No. 208 Fenggang Section, Dongshen Road, Fenggang Town, DongGuan, Guang Dong, P.R. China Tel:+86 755 89239859,89230460,85232807

Fax:+86 755 89312576

E-mail:info@key-tek.cn,sales01@key-tek.cn

website:www.key-tek.cn,www.rugged-key.com	
Key Lifespan	>1 million actuations
MTBF	>20000H
MTTR	<30min
APPLICATIONS	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged
	laptop, UAV ground station etc.

