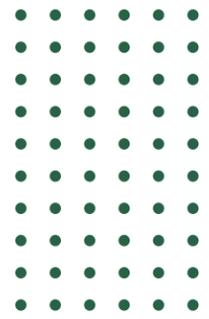# ULTRA RUGGED
MECHANICAL KEYBOARD

深圳市键特电子有限公司
东莞市键特电子有限公司
KEY TECHNOLOGY CHINA LIMITED

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Dongshen Road, Fenggang Town, DongGuan City, Guang Dong Province, P.R. China. Zip Code: 523703
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Company Profile

Established in 2006, Key Technology China Limited is an ISO9001-2015 and GJB9001C-2017 registered enterprise engaged in research, development, sale and service of all kinds of rugged keyboards/pointing devices for harsh environments covering industrial/military/marine/medical/coal and mine/oil and gas/chemical industry/transportation/finance/aerospace/public access/food and beverage/vehicle etc. applications. We have excellent and experienced teams who focus on product development & design, quality control and company running, dedicated to strict quality control and thoughtful customer service, our experienced staff are always available to provide ideal solutions to customers. Besides, our products have obtained many professional certificates/testing reports including but not limited to CE, RoHS, FCC, ESD, REACH, IEC60945-2002, MIL-STD-461G-EMC-EMI-EMS-ESD, MIL-STD-810H, IP67, IP68, Medical, Explosive-proof, high and low temperature testing as well as patent certificates.

CUSTOMER FIRST

INNOVATION TECHNOLOGY

CONTINUOUS IMPROVEMENT

QUALITY PRIORITY

TEAM WORK

CREDIT-BASED

LEADING MANUFACTURER

★ Feature and Reliability ★

EMC SPEC	MIL-STD-461G (EMC, EMI, EMS, ESD)
01	CE101 25Hz - 10kHz Conducted Emissions, Audio Frequency Currents, Power leads
02	CE102 10kHz -10MHz Conducted Emissions, Radio Frequency Potentials, Power leads
03	CS101 25Hz - 150kHz Conducted Susceptibility, Power Leads
04	CS106 Conducted Susceptibility, Transients, Power Leads
05	CS112 Electrostatic Discharge Susceptibility
06	CS114 4kHz -400MHz Conducted Susceptibility, Bulk Cable injection
07	CS115 Conducted Susceptibility, Bulk Cable injection, Impulse Excitation
08	CS116 10kHz - 100MHz Conducted Susceptibility, Damped Sinusoidal Transients, Cables and Power Leads
09	RE101 25Hz -100kHz Radiated Emissions, Magnetic Field
10	RE102 10kHz - 18GHz Radiated Emissions, Electric Field
11	RS101 25HZ - 100kHz Radiated Susceptibility, Magnetic Field
12	RS103 10kHz - 40GHz Radiated Susceptibility, Electric Field

Environmental Adaptability	MIL-STD-810H (high and low wide temperature (-40°C-+75°C), low pressure (Altitude), humidity, vibration, shock, salt fog, temperature shock, drop, rain, sand & dust, fungus, solar radiation etc.)
01	Low Pressure (57kPa - 106kPa)
02	High Temperature (+75℃)
03	Low Temperature (-40℃)
04	Temperature Shock （-55℃ to +75℃）
05	Rain Test (Wind velocity: no less than 18m/s, test duration: 3h)
06	Humidity (-30℃ to +60℃, 95%RH)
07	Fungus (Test period: 28 days (672h))
08	Salt Spray (Test period: 96h, IEC60512-6)
09	Low Frequency Vibration
10	Dust Test (10.6g/m³±7g/m³)
11	Vibration (Frequence: 0-2000Hz, Displacement: 1mm, Acceleration:70m/s²)
12	Shock (40g, 11ms)
13	Drop Test (Drop height: 122cm)

Designed to meet the critical military standards in these 10 aspects:
Reliability, Safety, Maintainability, Testability, Supportability, Environmental adaptability, Stability, Compatibility, Consistency, and Continuity.

Feature

IP54 static rated waterproof rugged durable embedded military mechanical keypad, with built-in integrated military grade PCB. The high quality ruggedized aluminum alloy panel is processed by CNC, PC material button, with mechanical axis key switch and 4.00mm long stroke with extremely comfortable tactile feeling for fast and accurate data input, with durable coating & antimicrobial surface, which can be used in harsh environments to well withstand bacteria, with 4 sinking holes for top panel mount to user's device. With green backlight included. Designed to meet MIL-STD-810H (wide temperature, shock, salt mist, vibration, fungus, humidity etc.) and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), which can also meet the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Part Number: K-TEK-M129KP-MA-BL-ML

Mechanical Data

Keys:	24 keys
Key Travel:	0.40±0.40mm
Key Lifespan:	>5 million actuations
Actuation Force:	0.55N±0.15N
Gross Weight:	≈0.50KG
Dimension:	129.0mm x 172.0mm(L x W)

Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≈17mA
Connect Interface:	USB
OS:	All Windows, Mac OSX, Vxworks, Android, Linux, Unix

Reliability

CE/FCC/ROHS, MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, rain, dust, fungus, solar radiation etc.)	
Protection Level:	IP54
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40℃ ~ +60℃
Storage Temperature:	-45℃ ~ +70℃
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

Feature

IP54 static rated rugged durable embedded military mechanical keyboard, with built-in integrated military grade PCB, 12 FN keys (F1, F2...F11, F12) are on top line for easy operation, featuring CNC aluminum alloy panel + backlit keycaps (supporting replacement of backlit keycaps) + mechanical switch technology; Ultra-long key lifespan of up to 50 million actuation, every key is specially reinforced using professional methods for enhanced durability; 4.00mm long stroke with extremely good tactile feeling for fast and accurate data input, with durable coating & antimicrobial surface to withstand bacteria and work well under harsh environment, swivel mounted desktop version and USB interface, with white backlight included. Designed to comply with MIL-STD-461G (EMC, EMI, EMS, ESD) and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, rain, dust, fungus, solar radiation etc.), which can also meet the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Part Number: K-TEK-M345-FN-BL-MA-NV-151B-SDT

Mechanical Data

Keys:	86 keys
Key Travel:	4.00±0.40mm
Key Lifespan:	>50 million actuations
Actuation Force:	0.55N±0.15N
Gross Weight:	≈1.60KG
Dimension:	345.0mm x 157.0mm x 35.0mm (L x W x H)

Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≈30mA when backlight is off, ≈300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Mac OSX, Vxworks, Android, Linux, Unix

Reliability

CE/FCC/ROHS, MIL-STD-461G-EMC-EMI-EMS-ESD and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, dust, fungus, solar radiation etc.)	
Protection Level:	IP54
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40℃ ~ +60℃
Storage Temperature:	-45℃ ~ +70℃
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

Feature

IP54 static rated waterproof rugged durable embedded military special mechanical keyboard, with built-in integrated military grade PCB, 12 FN keys (F1, F2...F11, F12) are on top line for easy operation. The high quality ruggedized aluminum alloy panel is processed by CNC, PBT material button, with mechanical axis key switch and 4.00mm long stroke with extremely good tactile feeling for fast and accurate data input, with durable coating & antimicrobial surface to withstand bacteria and work well under harsh environment, top panel mounted solution with sinking holes. USB interface. Designed to Meet MIL-STD-461G (EMC, EMI, EMS, ESD) and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, rain, dust, fungus, solar radiation etc.), which can also meet the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Part Number: K-TEK-M354-FN-MA-NV-151B

Mechanical Data

Keys:	86 keys
Key Travel:	4.00±0.40mm
Key Lifespan:	>50 million actuations
Actuation Force:	0.55N±0.15N
Gross Weight:	≈2.00KG
Dimension:	354.0mm x 150.0mm(L x W)

Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≈17mA
Connect Interface:	USB
OS:	All Windows, Mac OSX, Vxworks, Android, Linux, Unix

Reliability

CE/FCC/ROHS, MIL-STD-461G-EMC-EMI-EMS-ESD and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, dust, fungus, solar radiation etc.)	
Protection Level:	IP54
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40℃ ~ +60℃
Storage Temperature:	-45℃ ~ +70℃
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

Feature

IP54 static rated waterproof rugged durable embedded military mechanical keyboard, with built-in wide temperature military grade PCB, with numeric keypad, 12 FN keys (F1, F2...F11, F12) are on top line for easy operation. The high quality ruggedized aluminum alloy panel is processed by CNC, PC material button, with mechanical axis key switch and 4.00mm long stroke with extremely good tactile feeling for fast and accurate data input, with durable coating & antimicrobial surface to withstand bacteria and work well under harsh environment, top panel mounted solution with sinking holes, with green backlight included, J14A-9ZJB aviation plug. Designed to meet MIL-STD-461G (EMC, EMI, EMS, ESD) and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, rain, dust, fungus, solar radiation etc.), which can also meet the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Part Number: K-TEK-M418KP-FN-BL-MA-NV-151B

Mechanical Data

Keys:	107 keys
Key Travel:	4.00±0.40mm
Key Lifespan:	>50 million actuations
Actuation Force:	0.55N±0.15N
Gross Weight:	≈2.30KG
Dimension:	418.0mm x 172.0mm(L x W)

Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≈30mA(with backlight off); ≈300mA(with backlight on)
Connect Interface:	USB
OS:	All Windows, Mac OSX, Vxworks, Android, Linux, Unix

Reliability

CE/FCC/ROHS, MIL-STD-461G-EMC-EMI-EMS-ESD and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, dust, fungus, solar radiation etc.)	
Protection Level:	IP54
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40℃ ~ +60℃
Storage Temperature:	-45℃ ~ +70℃
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

Feature

IP54 static rated waterproof rugged durable embedded military mechanical keyboard with a IPX6 34mm optical thumb ball mouse at 500~1000 DPI resolution for fast cursor moving,with built-in wide temperature military grade PCB, 12 FN keys (F1, F2...F11, F12) are on top line for easy operation. The high quality ruggedized aluminum alloy panel is processed by CNC, with PC backlighting key caps, mechanical axis key switch and 4.00mm long stroke with extremely good tactile feeling for fast and accurate data input, with durable coating & antimicrobial surface to withstand bacteria and work well under harsh environment, top panel mounted solution with sinking holes, white backlight included and with J14A-9ZJB aviation plug. Designed to meet MIL-STD-461G (EMC, EMI, EMS, ESD) and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, rain, dust, fungus, solar radiation etc.), which can also meet the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Part Number: K-TEK-M458-OTB-FN-MA-BL-NV-151B

Mechanical Data

Keys:	86 keys
Key Travel:	4.00±0.40mm
Key Lifespan:	>50 million actuations
Actuation Force:	0.55N±0.15N
Gross Weight:	≈2.80KG
Dimension:	458.0mm x 172.0mm(L x W)

Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≈50mA(with backlight off); ≈300mA(with backlight on)
Connect Interface:	USB
OS:	All Windows, Mac OSX, Vxworks, Android, Linux, Unix

Reliability

CE/FCC/ROHS, MIL-STD-461G-EMC-EMI-EMS-ESD and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, dust, fungus, solar radiation etc.)	
Protection Level:	IP54
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40℃ ~ +60℃
Storage Temperature:	-45℃ ~ +70℃
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

Feature

IP54 rated rugged durable embedded military mechanical keyboard, with built-in wide temperature military grade electronics controller module, with numeric keypad, 12 FN keys (F1, F2...F11, F12) are on top line for easy operation, as well as 38mm removable and anti-vibration black hardened resin mechanical ball module with 400DPI resolutions for fast and accurate cursor position, 3 mouse buttons on the top of trackball. Rugged stainless steel black titanium electroplated front plate, PC material button, with mechanical axis key switch and 4.00mm long stroke with extremely good tactile feeling for fast and accurate data input, with durable coating & antimicrobial surface to withstand bacteria and work well under harsh environment, top panel mounted solution with sinking holes, with green backlight included and USB interface. Designed to meet MIL-STD-461G (EMC, EMI, EMS, ESD), MIL-STD-901D as well as MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, drop, rain, dust, fungus, solar radiation etc.), which can also meet the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Part Number: K-TEK-M503-38-MTB-AVR-KP-FN-MA-BL-151B-BT

Mechanical Data

Keys:	107 keys + 3 mouse buttons
Key Travel:	4.00±0.40mm
Key Lifespan:	>50 million actuations
Actuation Force:	0.55N±0.15N
Gross Weight:	≈2.20KG
Dimension:	503.0 x 170.8 x 34.0mm (L x W x H)

Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≈30mA(with backlight off); ≈300mA(with backlight on)
Connect Interface:	USB
OS:	All Windows, Mac OSX, Vxworks, Android, Linux, Unix

Reliability

CE/FCC/ROHS, MIL-STD-461G-EMC-EMI-EMS-ESD and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, dust, fungus, solar radiation etc.)	
Protection Level:	IP54
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40℃ ~ +75℃
Storage Temperature:	-45℃ ~ +85℃
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

Feature

IP54 rated waterproof rugged durable embedded military mechanical keyboard, with built-in wide temperature military grade PCB, with numeric keypad, 12 FN keys (F1, F2...F11, F12) are on top line for easy operation, as well as 50mm removable and anti-vibration black or red hardened resin mechanical ball module with 400DPI resolutions for fast and accurate cursor position, 3 mouse buttons on top of the trackball. Rugged stainless steel black titanium electroplated front plate, PC material button, with mechanical axis key switch and 4.00mm long stroke with extremely good tactile feeling for fast and accurate data input, with durable coating & antimicrobial surface to withstand bacteria and work well under harsh environment, top panel mounted solution with sinking holes, with green backlight included and dual USB interface. Designed to meet MIL-STD-461G (EMC, EMI, EMS, ESD), MIL-STD-901D and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, drop, rain, dust, fungus, solar radiation etc.), which can also meet the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Part Number: K-TEK-M503-50-MTB-AVR-KP-FN-MA-BL-151B-BT

Mechanical Data

Keys:	107 keys + 3 mouse buttons
Key Travel:	4.00±0.40mm
Key Lifespan:	>50 million actuations
Actuation Force:	0.55N±0.15N
Gross Weight:	≈2.30KG
Dimension:	503.0 x 170.8 x 42.0mm (L x W x H)

Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≈30mA(with backlight off); ≈300mA(with backlight on)
Connect Interface:	USB
OS:	All Windows, Mac OSX, Vxworks, Android, Linux, Unix

Reliability

CE/FCC/ROHS, MIL-STD-461G-EMC-EMI-EMS-ESD and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, dust, fungus, solar radiation etc.)	
Protection Level:	IP54
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40℃ ~ +75℃
Storage Temperature:	-45℃ ~ +85℃
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

Feature

IP54 rated rugged durable embedded military mechanical keyboard, with built-in wide temperature military grade electronics controller module, with numeric keypad, 12 FN keys (F1, F2...F11, F12) are on top line for easy operation, as well as 38mm removable and anti-vibration black hardened resin mechanical ball module with 400DPI resolutions for fast and accurate cursor position, 3 mouse buttons on the top of trackball. Rugged stainless steel black titanium electroplated housing for movable standalone desktop solution. PC material button, with mechanical axis key switch and 4.00mm long stroke with extremely good tactile feeling for fast and accurate data input, with durable coating & antimicrobial surface to withstand bacteria and work well under harsh environment, with green backlight included and USB interface. Designed to meet MIL-STD-461G (EMC, EMI, EMS, ESD), MIL-STD-901D as well as MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, drop, rain, sand & dust, fungus, solar radiation etc.), which can also meet the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Part Number: K-TEK-M506-38-MTB-AVR-KP-FN-MA-BL-151B-BT-DT

Mechanical Data

Keys:	107 keys + 3 mouse buttons
Key Travel:	4.00±0.40mm
Key Lifespan:	>50 million actuations
Actuation Force:	0.55N±0.15N
Gross Weight:	≈2.50KG
Dimension:	506.0 x 159.0 x 35.0mm (L x W x H)

Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≈30mA(with backlight off); ≈300mA(with backlight on)
Connect Interface:	USB
OS:	All Windows, Mac OSX, Vxworks, Android, Linux, Unix

Reliability

CE/FCC/ROHS, MIL-STD-461G-EMC-EMI-EMS-ESD and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, dust, fungus, solar radiation etc.)	
Protection Level:	IP54
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40℃ ~ +75℃
Storage Temperature:	-45℃ ~ +85℃
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

Part Number: K-TEK-M506-50-MTB-AVR-KP-FN-MA-BL-151B-BT-DT

Feature

IP54 rated waterproof rugged durable embedded military mechanical keyboard, with built-in wide temperature military grade PCB, with numeric keypad, 12 FN keys (F1, F2...F11, F12) are on top line for easy operation, as well as 50mm removable and anti-vibration black or red hardened resin mechanical ball module with 400DPI resolutions for fast and accurate cursor position, 3 mouse buttons on top of the trackball. Rugged stainless steel black titanium electroplated housting for movable standalone desktop solution, PC material button, with mechanical axis key switch and 4.00mm long stroke with extremely good tactile feeling for fast and accurate data input, with durable coating & antimicrobial surface to withstand bacteria and work well under harsh environment, with green backlight included and USB interface. Designed to meet MIL-STD-461G (EMC, EMI, EMS, ESD), MIL-STD-901D and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, drop, rain, sand & dust, fungus, solar radiation etc.), which can also meet the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Mechanical Data

Keys:	107 keys + 3 mouse buttons
Key Travel:	4.00±0.40mm
Key Lifespan:	>50 million actuations
Actuation Force:	0.55N±0.15N
Gross Weight:	≈2.60KG
Dimension:	506.0 x 159.0 x 42.0mm (L x W x H)

Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≈30mA(with backlight off); ≈300mA(with backlight on)
Connect Interface:	USB
OS:	All Windows, Mac OSX, Vxworks, Android, Linux, Unix

Reliability

CE/FCC/ROHS, MIL-STD-461G-EMC-EMI-EMS-ESD and MIL-STD-810H (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, dust, fungus, solar radiation etc.)	
Protection Level:	IP54
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40℃ ~ +75℃
Storage Temperature:	-45℃ ~ +85℃
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.