

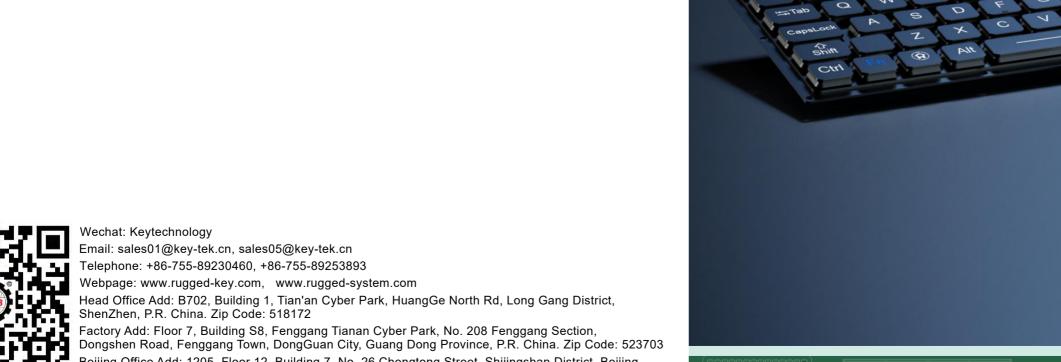
# SEMI-RUGGED/ULTRA **RUGGED KEYBOARD SERIES**

Rugged Keyboards and Mice Expert





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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# 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 mine/oil and gas/transportation/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. Ranging from our off-the-shelf products to customized one, we can always deliver you a satisfying solution! Besides, our products have obtained many certificates/testing reports including but not limit to CE, RoHS, FCC, ESD, REACH, GJB151A-1997, GJB150A-2009, GJB151B-2013, MIL-STD-461G-EMC-EMI-EMS-ESD, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, salt spray, temperature shock, rain, dust, fungus, solar radiation etc.), IEC60945-2002, IP67, IP68, Medical, Explosive-proof as well as patent certificates.

## Advantages of this series of products

- 1. Fully sealed semi-rugged dynamic waterproof patented technology
- 2. Solve the problem of heavy tactile feeling of silicone rubber keyboards
- 3. Solve the defects of regular silicone rubber keyboards and membrane scissor switch keyboards that are not vandal proof or resistant to prying or scratch
- 4. Perform well in dynamic waterproof/dust and sandstrom-proof, solve the defects of membrane scissors switch keyboards and reinforced Chiclet keyboards that are not resistant to sandstorm
- 5. NO MOQ
- 6. Ultra thin standard semi-rugged version and fully rugged version optional
- 7. Keyboard and casing are sealed and ruggedized, easy for maintenance
- 8. Others

#### Disadvantages of this series of products

- 1. Light tactile feeling but possible to have uneven actuation of every key
- 2. Non-vandalproof, when the side of keys is pressed or squeezed vigorously, there will be risk of broken sloping sidewall
- 3. When pressing the side or four corners of keys, the four corners and sides of keys cannot fall at the same time due to its internal structure, and might be tilt
- 4. Processing technology and procedures are complicated and with high cost
- 5. Others

# 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
1 0	RE102 10kHz - 18GHz Radiated Emissions, Electric Field
1 1	RS101 25HZ - 100kHz Radiated Susceptibility, Magnetic Field
12	RS103 10kHz - 40GHz Radiated Susceptibility, Electric Field

Environmental Adaptability	MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, fungus etc.)
01	Low Pressure (57kPa - 106kPa)
02	High Temperature (+75℃)
03	Low Temperature (-40°C)
04	Temperature Shock (-55°C to +75°C)
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
1 0	Dust Test (10.6g/m³±7g/m³)
11	Vibration (Frequence: 0-2000Hz, Displacement: 1mm, Acceleration:70m/s²)
1 2	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.







IP67 fully sealed and durable embedded ultra thin silicone rubber rugged military keyboard, with sealed & ruggedized tough touchpad for fast and accurate cursor position, with built-in ultra-thin Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. The whole keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology., with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, top panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

#### Patented keyboard (Patent number: 202420937267.2)

### Mechanical Data

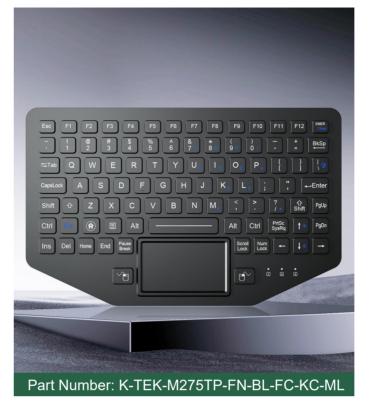
Keys:	91 keys (including 2 mouse buttons)
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.45KG
Dimension:	283.0mm x 177.7mm(L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
Protection Level:	IP67 (front panel)	
MTBF:	>20000H	
MTTR:	<30min	
Operating Temperature:	-40°C ~ +75°C	
Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	



## Feature `

IP67 fully sealed and durable embedded ultra thin rugged military keyboard, with sealed & ruggedized tough touchpad for fast and accurate cursor position, with built-in ultra-thin Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter kevs for full keyboard functionality. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology. With 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or typing error. Adjustable white backlight included, top panel mounting solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.),and MIL-STD -461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

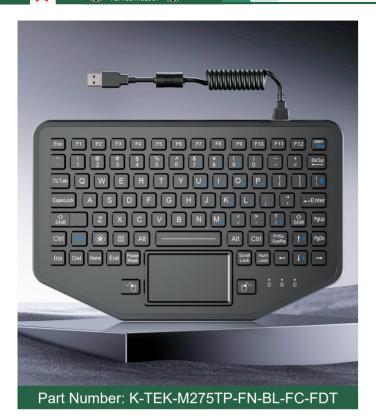
Keys:	92 keys (including 2 mouse buttons)
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.43KG
Dimension:	283.0mm x 177.7mm(L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
Protection Level:	IP67 (front panel)	
MTBF:	>20000H	
MTTR:	<30min	
Operating Temperature:	-40°C ~ +75°C	
Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	



IP68 fully sealed and durable silicone rubber rugged keyboard, with fully sealed waterproof reinforced wide temperature touchpad for fast and accurate cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. The whole keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology. With 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or typing error. Adjustable white backlight included, VESA mountable super flat desk top version with robust ABS polycarbonate case. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain. salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	91 keys (including 2 mouse buttons)
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.65KG
Dimension:	297.6mm x 192.1mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability `

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
Protection Level:	IP68	
MTBF:	>20000H	
MTTR:	<30min	
Operating Temperature:	-40°C ~ +75°C	
Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	



#### Feature `

IP68 fully sealed and durable rugged keyboard, with fully sealed waterproof reinforced wide temperature touchpad for fast and accurate cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology. With 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or typing error. Adjustable white backlight included, VESA mountable super flat desk top version with robust ABS polycarbonate case. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	92 keys (including 2 mouse buttons)
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.63KG
Dimension:	297.6mm x 192.1mm (L x W)

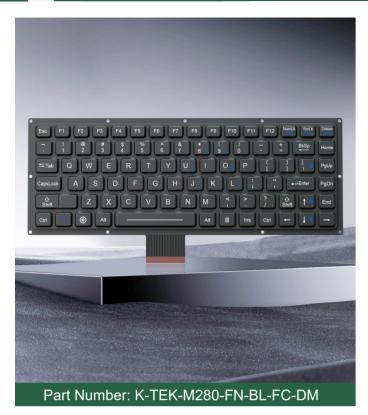
#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
Protection Level:	IP68	
MTBF:	>20000H	
MTTR:	<30min	
Operating Temperature:	-40°C ~ +75°C	
Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	





IP67 fully sealed and durable embedded ultra thin rugged silicone rubber keyboard, with built-in ultra-thin dot matrix Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. The keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD -461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

# Mechanical Data

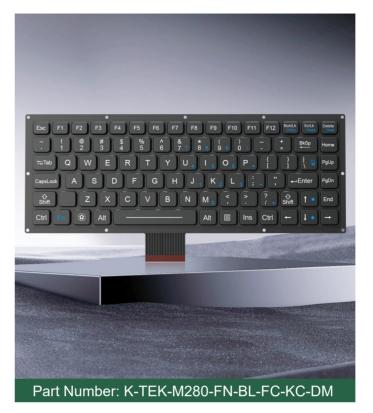
Keys:	86 keys
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.35KG
Dimension:	280.0mm x 97.3mm(L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	Dot matrix (USB/PS2 optional)
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



## Feature `

IP67 fully sealed and durable embedded ultra thin rugged keyboard, with built-in ultra-thin dot matrix Flexible Printed Circuit and semireinforced ultra-thin stainless steel back plate, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber). and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	87 keys
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.33KG
Dimension:	280.0mm x 97.6mm(L x W)

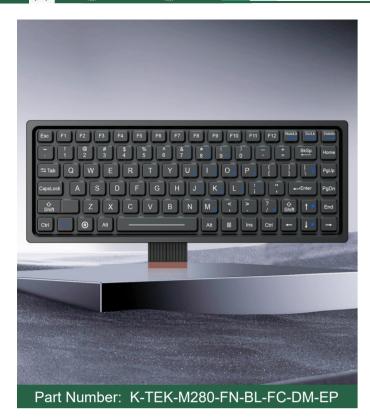
#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	Dot matrix (USB/PS2 optional)
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
Protection Level:	IP67 (front panel)	
MTBF:	>20000H	
MTTR:	<30min	
Operating Temperature:	-40°C ~ +75°C	
Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	





IP67 fully sealed and durable embedded ultra thin rugged silicone rubber keyboard, with built-in ultra-thin dot matrix Flexible Printed Circuit, back plate made of reinforced aluminum alloy, and the front panel is equipped with an aluminum alloy frame to reinforce and prevent keyboard deformation, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. The keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment, FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

# Mechanical Data

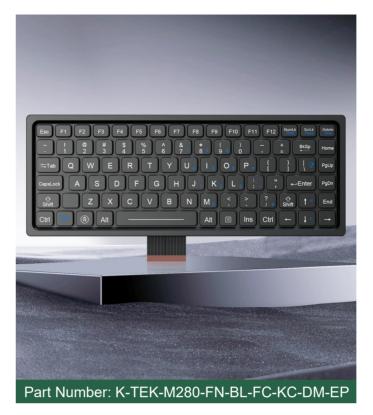
Keys:	86 keys
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.36KG
Dimension:	TBA

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	Dot matrix (USB/PS2 optional)
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



## Feature \

IP67 fully sealed and durable embedded ultra thin rugged keyboard, with built-in ultra-thin dot matrix Flexible Printed Circuit, back plate made of reinforced aluminum alloy, and the front panel is equipped with an aluminum alloy frame to reinforce and prevent keyboard deformation, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti -microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity. Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	87 keys
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.34KG
Dimension:	294.8mm x 112.1mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	Dot matrix (USB/PS2 optional)
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.





IP67 fully sealed and durable embedded ultra thin rugged silicone rubber keyboard, with built-in ultra-thin Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. The keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	86 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.38KG
Dimension:	Keyboard:280.0mm x 97.3mm(L x W); TouchPad:85.0mm x 60.0mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



## Feature `

IP67 fully sealed and durable embedded ultra thin rugged keyboard, with built-in ultra-thin Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. Keyboard surface uses ultra rugged P+R technology (PC kevcaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity. Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	87 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.36KG
Dimension:	Keyboard:280.0mm x 97.6mm(L x W); TouchPad: 85.0mm x 60.0mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
Protection Level:	IP67 (front panel)	
MTBF:	>20000H	
MTTR:	<30min	
Operating Temperature:	-40°C ~ +75°C	
Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	





IP67 fully sealed and durable embedded ultra thin rugged silicone rubber keyboard, with built-in ultra-thin Flexible Printed Circuit, back plate made of reinforced aluminum alloy, and the front panel is equipped with an aluminum alloy frame to reinforce and prevent keyboard deformation, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position. 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. The keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD -461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

### Mechanical Data

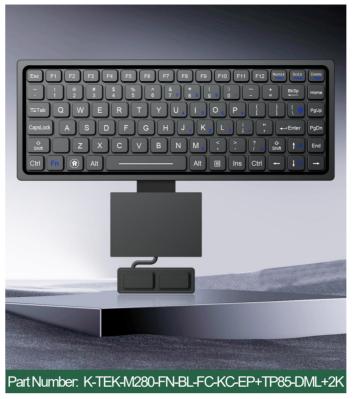
Keys:	86 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.40KG
Dimension:	TBA

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



#### Feature `

IP67 fully sealed and durable embedded ultra thin rugged keyboard, with built-in ultra-thin Flexible Printed Circuit, back plate made of reinforced aluminum alloy, and the front panel is equipped with an aluminum alloy frame to reinforce and prevent keyboard deformation, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD -810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency,

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	87 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.38KG
Dimension:	Keyboard: 294.8mm x 95.7mm (L x W) Touchpad: 112.1mm x 60.0mm (L x W)

#### Electrical Data

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



IP67 fully sealed and durable embedded ultra thin rugged keyboard. with built-in ultra-thin Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon -on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.),and MIL-STD-461G-EMC -EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	86 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.20KG
Dimension:	Keyboard: 280.0mm x 97.3mm (L x W) Touchpad: 66.0mm x 50.0mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



#### Feature \

IP67 fully sealed and durable embedded ultra thin rugged keyboard, with built-in ultra-thin Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position, with independent numeric keypad on the right side of keyboard and 12 function keys(F1, F2, ... F12) on top line for easy operation. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity. Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	102 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.35KG
Dimension:	Keyboard: 315.0mm x 108.0mm (L x W) Touchpad: 66.0mm x 50.0mm (L x W)

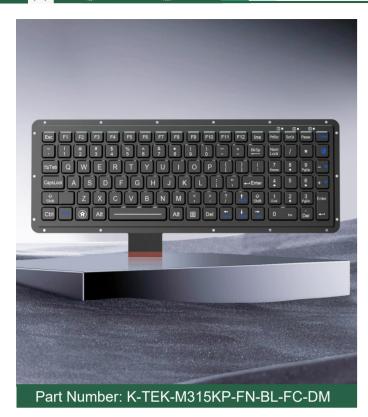
#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
Protection Level:	IP67 (front panel)	
MTBF:	>20000H	
MTTR:	<30min	
Operating Temperature:	-40°C ~ +75°C	
Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	





IP67 fully sealed and durable embedded ultra thin rugged silicone rubber keyboard, with built-in ultra-thin dot matrix Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, with independent numeric keypad on the right side of keyboard and 12 function kevs(F1, F2, ... F12) on top line for easy operation. The keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD -461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity. Patented keyboard (Patent number: 202420937267.2)

# Mechanical Data

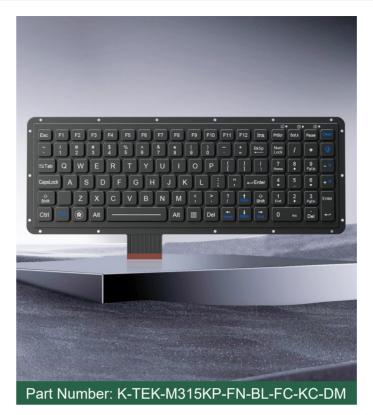
Keys:	101 keys
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.37KG
Dimension:	315.0mm x 108.0mm(L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	Dot matrix (USB/PS2 optional)
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



#### Feature \

IP67 fully sealed and durable embedded ultra thin rugged keyboard, with built-in ultra-thin dot matrix Flexible Printed Circuit and semireinforced ultra-thin stainless steel back plate, with independent numeric keypad on the right side of keyboard and 12 function keys (F1, F2, ... F12) on top line for easy operation. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

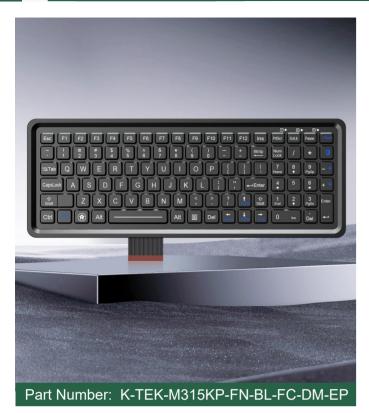
Keys:	102 keys
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.35KG
Dimension:	315.0mm x 108.0mm(L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	Dot matrix (USB/PS2 optional)
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
Protection Level:	IP67 (front panel)	
MTBF:	>20000H	
MTTR:	<30min	
Operating Temperature:	-40°C ~ +75°C	
Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	



IP67 fully sealed and durable embedded ultra thin rugged silicone rubber keyboard, with built-in ultra-thin dot matrix Flexible Printed Circuit, back plate made of reinforced aluminum alloy, and the front panel is equipped with an aluminum alloy frame to reinforce and prevent keyboard deformation, with independent numeric keypad on the right side of keyboard and 12 function keys(F1, F2, ... F12) on top line for easy operation. The keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

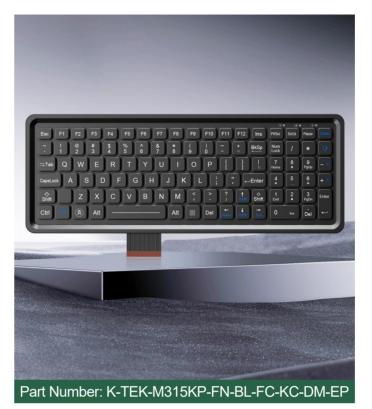
Keys:	101 keys
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.38KG
Dimension:	330.6mm x 123.6mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	Dot matrix (USB/PS2 optional)
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
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Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



#### Feature

IP67 fully sealed and durable embedded ultra thin rugged keyboard, with built-in ultra-thin dot matrix Flexible Printed Circuit, back plate made of reinforced aluminum alloy, and the front panel is equipped with an aluminum alloy frame to reinforce and prevent keyboard deformation, with independent numeric keypad on the right side of keyboard and 12 function keys(F1, F2, ... F12) on top line for easy operation. Keyboard surface uses ultra rugged P+R technology (PC kevcaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity. Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	102 keys
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.36KG
Dimension:	330.6mm x 123.6mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	Dot matrix (USB/PS2 optional)
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
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APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

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IP67 fully sealed and durable embedded ultra thin rugged silicone rubber keyboard, with built-in ultra-thin Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position, with independent numeric keypad on the right side of keyboard and 12 function keys(F1, F2, ... F12) on top line for easy operation. The keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD -810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	101 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.40KG
Dimension:	Keyboard:315.0mm x 108.0mm (L x W);Touchpad: 85.0mm x 60.0mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
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#### Feature `

IP67 fully sealed and durable embedded ultra thin rugged keyboard. with built-in ultra-thin Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position, with independent numeric keypad on the right side of keyboard and 12 function keys(F1, F2, ... F12) on top line for easy operation. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon-ongold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature. low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC -EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	102 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.38KG
Dimension:	Keyboard: 315.0mm x 108.0mm (L x W); Touchpad: 85.0mm x 60.0mm (L x W)

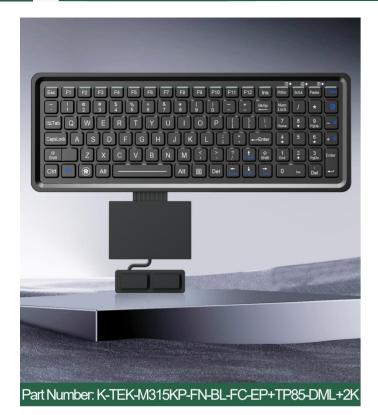
#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
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Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	





IP67 fully sealed and durable embedded ultra thin rugged silicone rubber keyboard, with built-in ultra-thin Flexible Printed Circuit, back plate made of reinforced aluminum alloy, and the front panel is equipped with an aluminum alloy frame to reinforce and prevent keyboard deformation, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position, with independent numeric keypad on the right side of keyboard and 12 function keys(F1, F2, ... F12) on top line for easy operation. The keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity. Patented keyboard (Patent number: 202420937267.2)

# Mechanical Data

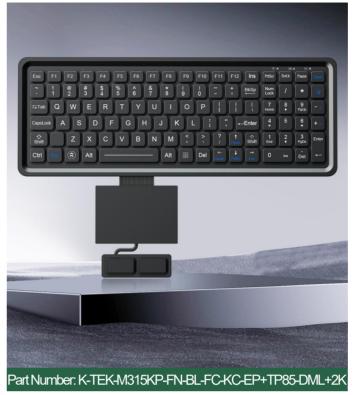
Keys:	101 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.41KG
Dimension:	Keyboard: 330.6mm x 123.6mm (L x W) Touchpad: 85.0mm x 60.0mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



## Feature `

IP67 fully sealed and durable embedded ultra thin rugged keyboard, with built-in ultra-thin Flexible Printed Circuit, back plate made of reinforced aluminum alloy, and the front panel is equipped with an aluminum alloy frame to reinforce and prevent keyboard deformation, external with fully sealed waterproof and reinforced wide-temperature touchpad for fast cursor position, with independent numeric keypad on the right side of keyboard and 12 function keys (F1, F2, ... F12) on top line for easy operation. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.),and MIL-STD -461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	102 keys+ 2 mouse buttons
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.39KG
Dimension:	Keyboard: 330.6mm x 123.6mm (L x W) Touchpad: 85.0mm x 60.0mm (L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).		
Protection Level:	IP67 (front panel)	
MTBF:	>20000H	
MTTR:	<30min	
Operating Temperature:	-40°C ~ +75°C	
Storage Temperature:	-50°C ~ +85°C	
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.	





IP67 fully sealed and durable embedded ultra thin silicone rubber rugged military keyboard, with built-in ultra-thin Flexible Printed Circuit and semi-reinforced ultra-thin stainless steel back plate, with fully sealed waterproof reinforced wide temperature touchpad for fast and accurate cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. The keyboard surface adopts silicone rubber material and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment, FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.), and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

# Mechanical Data

Keys:	87 keys (including 2 mouse buttons)
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.38KG
Dimension:	315.0mm x 108.0mm(L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



#### Feature

IP67 fully sealed and durable embedded ultra thin rugged military keyboard, with built-in ultra-thin Flexible Printed Circuit and semireinforced ultra-thin stainless steel back plate, with fully sealed waterproof reinforced wide temperature touchpad for fast and accurate cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. Keyboard surface uses ultra rugged P+R technology (PC keycaps + Rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & antimicrobial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid misoperation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.),and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	87 keys (including 2 mouse buttons)
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.36KG
Dimension:	315.0mm x 108.0mm(L x W)

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

	FCC certified, meet MIL-STD-810F (high and low wide temperature, low pressure, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.

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IP67 fully sealed and durable embedded ultra thin silicone rubber rugged military keyboard, with built-in ultra-thin Flexible Printed Circuit. back plate made of reinforced aluminum alloy, and the front panel is equipped with an aluminum alloy frame to reinforce and prevent keyboard deformation, with fully sealed waterproof reinforced wide temperature touchpad for fast and accurate cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. The keyboard adopts silicone rubber front plate + PC keycaps and carbon contact + FPC carbon-on-gold key switch technology, with 1.50mm± 0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.),and MIL-STD -461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity.

#### Patented keyboard (Patent number: 202420937267.2)

# Mechanical Data

Keys:	87 keys (including 2 mouse buttons)
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.40KG
Dimension:	330.6mm x 123.6mm(L x W)

# **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

#### Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
MTBF:	>20000H
MTTR:	<30min
Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.



#### Feature `

IP67 fully sealed and durable embedded ultra thin rugged military keyboard, with built-in ultra-thin Flexible Printed Circuit, reinforced aluminum alloy back plate, and the front panel is equipped with aluminum alloy frame to reinforce and prevent keyboard deformation, with fully sealed waterproof reinforced wide temperature touchpad for fast and accurate cursor position, 12 function keys(F1, F2, ... F12) are on top line for easy operation, with combination numbers on letter keys for full keyboard functionality. Keyboard surface uses ultra rugged P+R technology (PC keycaps + rubber), and adopts carbon contact and FPC carbon-on-gold key switch technology, with 1.50mm±0.10mm key travel with extremely good tactile feeling for fast and accurate data input without any noise, there will be no key value missing, no stuck key during the keyboard operation, with durable coating & anti-microbial keyboard surface withstand most chemicals and liquids under harsh environment. FN + CLEAN combination keys for easy cleaning without taking the keyboard away from PC to avoid mis-operation or mis-typing. Adjustable white backlight included, panel mount solution. Designed to meet MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock, temperature shock, rain, salt mist, dust, fungus, solar radiation etc.),and MIL-STD-461G-EMC-EMI-EMS-ESD (optional), as well as the critical military standards in these 10 aspects: reliability, safety, maintainability, testability, supportability, environmental adaptability, stability, compatibility, consistency, and continuity. Patented keyboard (Patent number: 202420937267.2)

#### Mechanical Data

Keys:	87 keys (including 2 mouse buttons)
Key Travel::	1.50±0.10mm
Key Lifespan:	>5 million actuations
Actuation Force:	1.2N±0.2N
Gross Weight:	≈ 0.38KG
Dimension:	TBA

#### **Electrical Data**

Supply Voltage:	DC +5V±5%
Working Current:	≤30mA when backlight is off, ≤300mA with backlight on
Connect Interface:	USB
OS:	All Windows, Linux, Unix, Mac OSX, Vxworks, Android, (U-cosTo be confirmed).

# Reliability

RoHS compliant, CE and FCC certified, MIL-STD-810F (high and low wide temperature, low pressure, humidity, vibration, shock,temperature shock, rain, salt mist, dust, fungus, solar radiation etc.).	
Protection Level:	IP67 (front panel)
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Operating Temperature:	-40°C ~ +75°C
Storage Temperature:	-50°C ~ +85°C
APPLICATION:	Vehicle, aerospace, naval, defense, maritime, Radar, console, portable rugged laptop, notebook, UAV ground station, GCS etc.