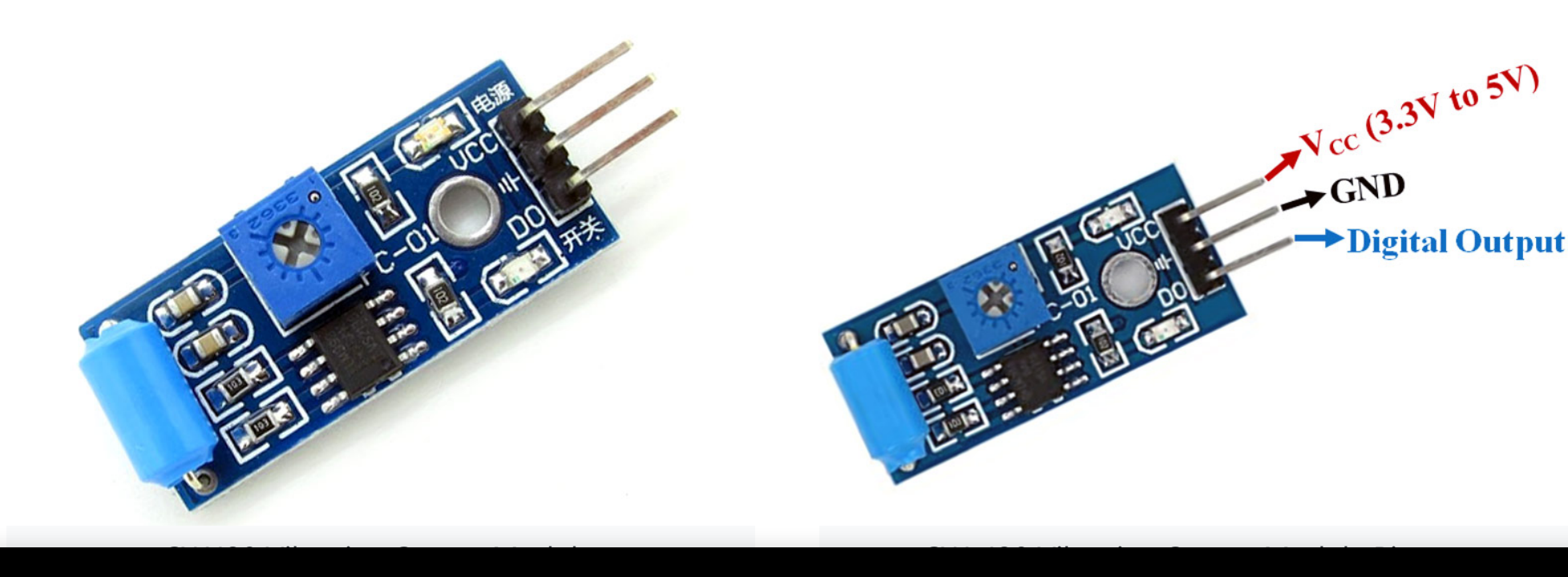


SW-420 Vibration Sensor Module

 29 April, 2020

 0



This website uses cookies to improve user experience. By using the website you are giving your consent to set cookies. For more information, read our [cookie policy](#) and [privacy policy](#)

OKAY, I UNDERSTAND

The vibration sensor module based on the **vibration sensor SW-420** and Comparator LM393 is used to detect vibrations. The threshold can adjust using an on-board potentiometer. During no vibration, the sensor provides Logic Low and when the vibration is detected, the sensor provides Logic High.

Pin Configuration of Vibration Sensor Module

Pin Name	Description
VCC	The Vcc pin powers the module, typically with +5V
GND	Power Supply Ground
DO	Digital Out Pin for Digital Output.

Vibration Sensor Module Features & Specifications

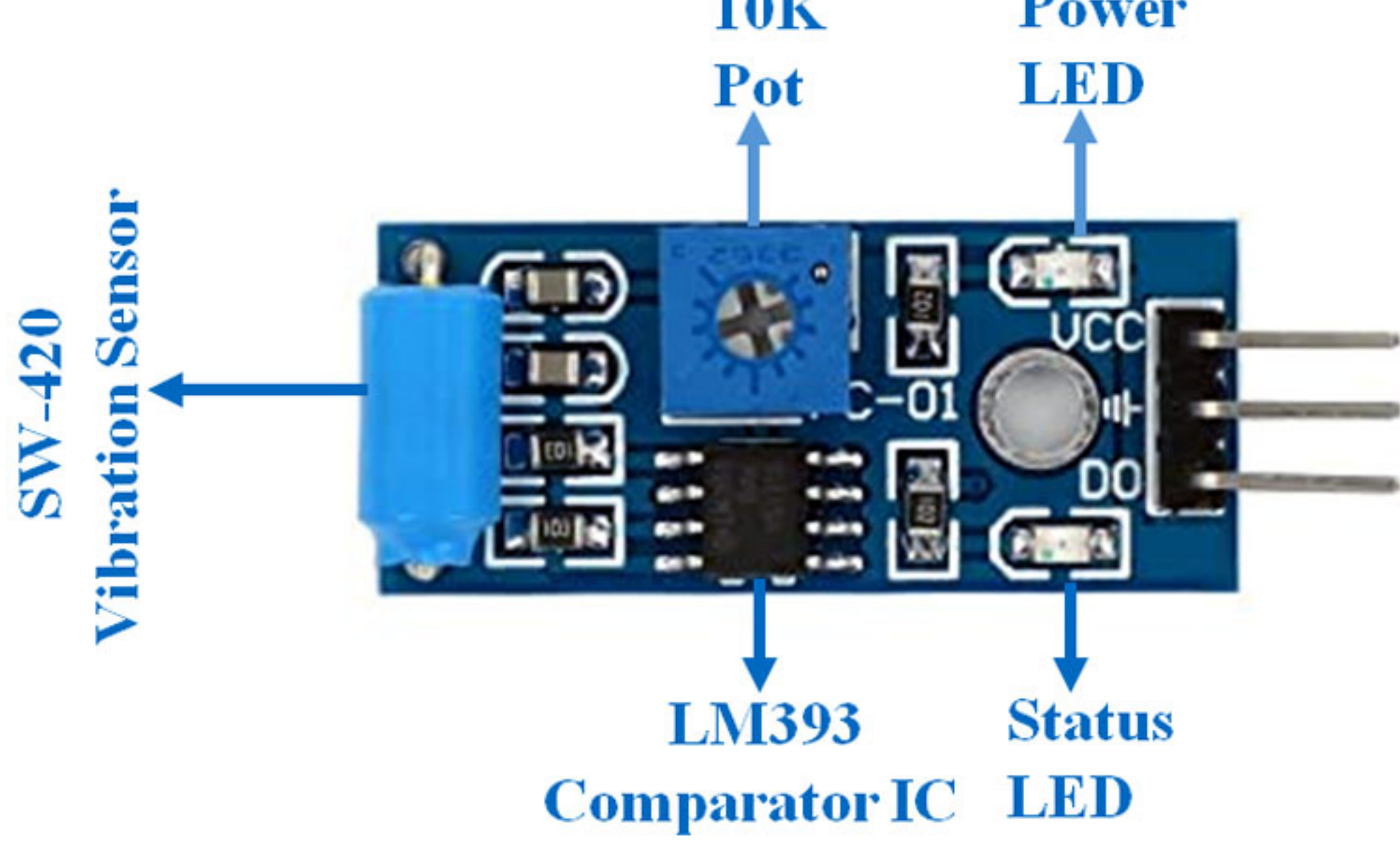
- Operating Voltage: 3.3V to 5V DC
- Operating Current: 15mA
- Using SW-420 normally closed type vibration sensor
- LEDs indicating output and power
- LM393 based design
- Easy to use with Microcontrollers or even with normal Digital/Analog IC
- With bolt holes for easy installation
- Small, cheap and easily available

Alternate Sensor Modules: [IR Sensor Module](#), [LDR Sensor Module](#), [TP4056A Li-ion Battery Charging/Discharging Module](#), [DS3231 RTC Module](#), [TMC2209 Stepper Motor Driver Module](#), [DRV8825 Stepper Motor Driver Module](#), [A4988 Stepper Motor Driver Module](#), [NEO-6MV2 GPS Module](#), [Joystick Module](#), [EM18 - RFID Reader Module](#), [ADXL335 Accelerometer Module](#), [HMC5883L Magnetometer Module](#), [Soil Moisture Sensor](#)

Related Components: [LM393 Comparator IC](#), [10K Potentiometer](#), [Capacitor](#), [SW-420 Vibration Sensor](#)

Brief about SW-420 Vibration Sensor/Motion Sensor Module

This Vibration Sensor Module consists of an SW-420 Vibration Sensor, resistors, capacitor, potentiometer, comparator LM393 IC, Power, and status LED in an integrated circuit. It is useful for a variety of shocks triggering, theft alarm, smart car, an earthquake alarm, motorcycle alarm, etc.



LM393 IC

LM393 Comparator IC is used as a voltage comparator in this vibration sensor module. Pin 2 of LM393 is connected to Preset (10KΩ Pot) while pin 3 is connected to vibration sensor. The comparator IC will compare the threshold voltage set using the preset (pin2) and the Vibration Sensor pin (pin3).

Preset (Trimmer pot)

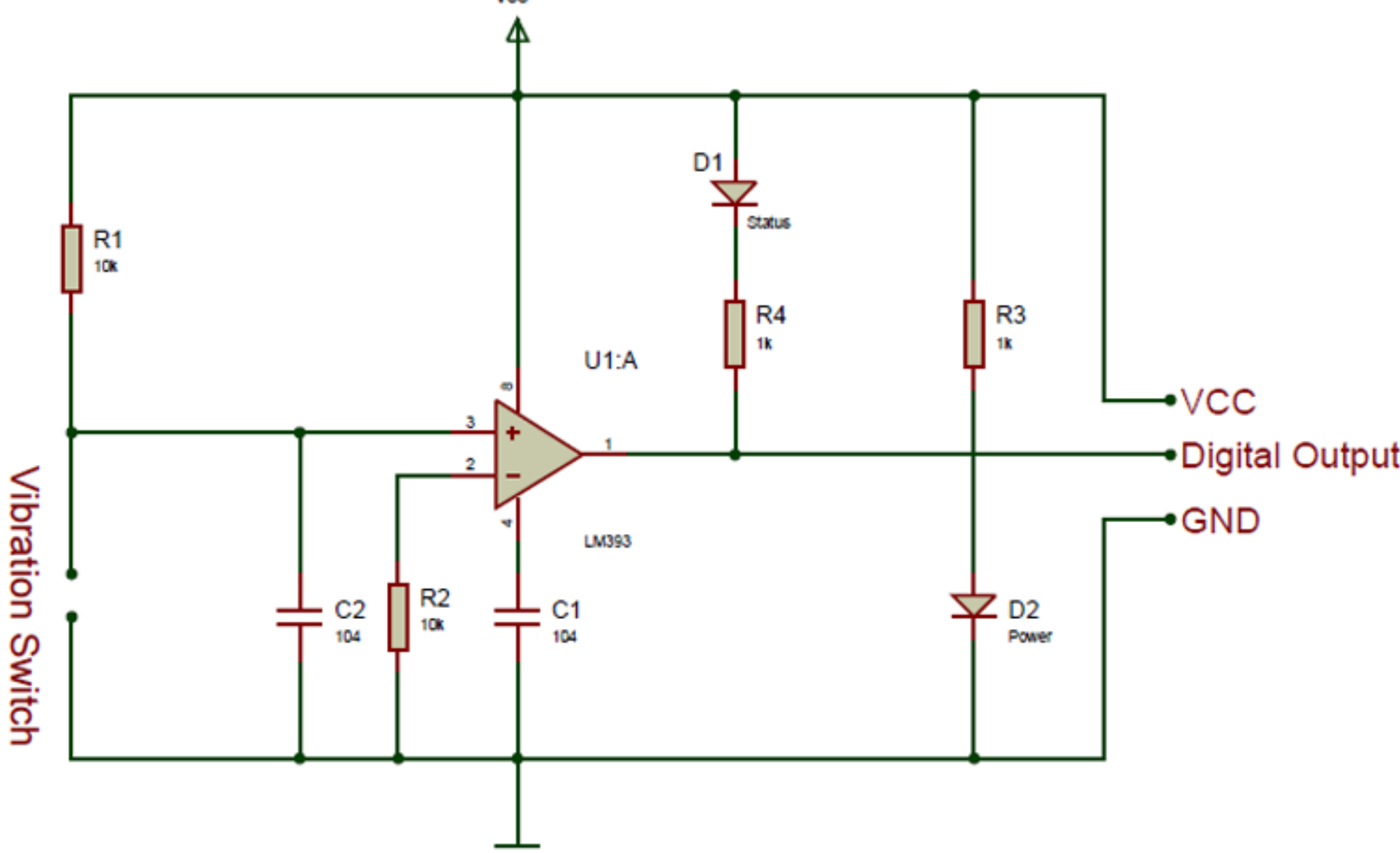
Using the onboard preset, you can adjust the threshold (sensitivity) of the digital output.

SW-420 Vibration Switch

Vibration switch recognizes the amplitude of the vibration to which it is exposed. The switch response can be electrical contact closure or contact opening. The electrical contact may be either an electromechanical relay or a solid-state device.

How to Use SW-420 Vibration Sensor Module

Vibration sensor module consists of three pins i.e. VCC, GND, and DO. The Digital out pin is connected to the output pin of the LM393 comparator IC. The Internal Circuit diagram of the Temperature sensor module is given below.



Using the Vibration sensor module with the microcontroller is very easy. Connect the Digital Output pin of the module to the Digital pin of Microcontroller. Connect VCC and GND pins to 5V and GND pins of Microcontroller.

Applications of Vibration Sensor Module




- Shocks triggering
- Theft alarm
- Smart car
- Earthquake alarm
- Motorcycle alarm

[Component Datasheet](#)

[SW-420 Vibration Sensor Datasheet](#)

Where to Buy

[View more results for SW420](#)

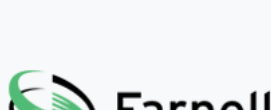
Distributor ↕	Part Number ↕	Stock ↕	
 Verical	SW-420	228	Buy Now
 Master Electronics	SW-420	228	Buy Now
 Electro Sonic	SW-420	228	Buy Now

Find and Compare Electronic Components & Parts

Get more part information including pricing, lead time and technical specs using [oemsecrets.com](#) part search

Search a part number or series [Search Now](#)

[Upload BOM](#) Upload a list of part numbers to find the inventory and pricing of multiple part numbers with [oemsecrets.com](#) new BOM Tool.

 **Get 15% off Farnell and Newark Products**
Find your exclusive discount code and get 15% off Farnell and Newark products when buying through [oemsecrets.com](#). Once you have your code simply add the discount code to the Farnell or Newark checkout.
[Get Discount Code](#)

Tags

[Vibration Sensor](#) [Sensor Module](#)

Related Post



MS5611 Atmospheric Pressure & Temperature Sensor Module

Comments

Leave a Reply

Please [Login](#)

Join 20K+subscribers

We will never spam you.

Enter Your Email Address

[SUBSCRIBE](#)

Be a part of our ever growing community.

 **FEATURED PRODUCTS FROM DIGI-KEY**

FLEXible Internal FPC Antennas
Pulse Electronics' "flex family" line of internal FPC antennas are a flexible solution for a variety of applications.

MA40H15-R SMD 40 kHz Transducer
Murata's small transducer is ideal for human, object, and gesture detection and distance measuring

MicroForce Sensors - FMA Series
Enables intelligence in applications and increases efficiency for medical and industrial applications

ATEX Certified Fans
Mechatronics fan solutions are designed for potentially hazardous atmospheres

BKZ Series Locking Power Jacks
BKZ Series DC power jacks from Switchcraft have an easy twist-lock feature.

Field Stop Trench IGBT Series
MCC's field stop trench IGBT series devices allow currents of 40 A by max. voltage of 650 V & 1200 V

SAS/PCle® 4.0 (U.2 and U.3) Connectors
Amphenol ICC's SAS/PCle 4.0 (U.2 and U.3) connectors are made to withstand diverse conditions

 **One-Stop Service For PCB&PCBA**



[Order Now](#)


PCBONLINE

ONE-STOP SOLUTION PCB & PCBA

Middle and High-end
21-year Manufacturing Experience

[Order Now](#)

LATEST PRODUCTS



Ultra-Compact Highly Responsive PRF03BB541NB7RL PTC Thermistor for Overheat Sensing in Wearable Applications

30 April, 2021



650 V GaN FETs for Reducing Form Factor and Minimizing System Costs in 80 PLUS Titanium-Class Industrial Power Supplies

30 April, 2021



Digi-Key Electronics Announces New Global Distribution Partnership with Electronic Connector Supplier ERNI Electronics

30 April, 2021