

# USB Slip Ring



USB refers to a kind of serial bus standard connecting computer system with external device, also known as a technical norm of input and output interface. It offers a channel for high-speed data transmission and storage. With the development of industry, it raises a high requirement of 360°rotating transmission for USB in multifarious fields.



JINPAT USB slip ring can be applied to machine vision, high-speed data collection, photographic equipment, digital television (set-top box) , VR, test rotating table and so forth. As an expert in USB transmission, it provides the best solution for signal transmission with large capacity and high velocity between rotary connecting parts of the systems.

JINPAT R&D Center has developed and manufactured high precision slip rings for USB, which can transmit all kinds of USB signals with unlimited rotation in 360 degrees. Such slip rings can be divided into two series: USB2.0 and USB3.0. Both of them enjoy a high transmission velocity, with the actual measurement over 2.0Gbps, 5.0Gbps in theory. Also, they feature multiple signal channels, with USB3.0 up to 2 channels and USB2.0 up to 12 channels. Moreover, integrated rotating transmission of power, HDMI, DC and other signals is workable while the excellent contact material ensures a low electrical noise and over-long service life. Besides, options contain electric transmission method or photoelectric transmission method, and various connector types. It's worth noting that JINPAT Electronics has a so strong capability of designing that slip rings of different specifications can be customized to serve more customers. Most importantly, JINPAT slip rings for USB have passed a series of stringent tests, proved to be of good quality and reliability with a 360°rotating transmission.

Such a USB3.0 Slip Ring usually has the characteristics of 5 circuits per pair, working voltage of 5V, inner diameter of 20mm, precious metal contact, aluminum alloy housing, with a protection level up to IP65. It has a long service life up to 10 million turns and wire of USB3.0 female. Furthermore, it is water-proof, pressure-proof, vibration resistant and of good reliability and quality.



JINPAT Simulation Test For USB Transmission In Facility

- ◆ Built-in USB female terminal, wireless, USB male terminal quick plug- in is supported.
- ◆ Stable transmission, no data package loss or code cross, minor return loss or insertion loss down to 5dB@2.5GHz.
- ◆ Military cladding technology, noble mental contact and long service life of more than 10 million turns.
- ◆ No surge kind interference and occasionally drop USB connection with extremely low BER (bit error rate) down to 10E-11.
- ◆ Compact design, with an outer diameter up to 5.5mm and length up to 9.6mm.
- ◆ Multi-channel USB slip rings could be achieved by customization, up to 12 circuits.

