



PCIE USB 3.0 Expansion Card

FS-U2-Pro FS-U4L-Pro
Site:www.febsmart.com Email:support@febsmart.com

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FS-U2-Pro PCIE to 2-Ports USB 3.0 Expansion Card.



FS-U4L-Pro PCIE to 4-Ports USB 3.0 Expansion Card.



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FS-U2-Pro Description:

FS-U2-Pro is a PCI Express to 2-Ports 5Gbps USB 3.0 expansion card. The 2X USB-A ports will share 5Gbps bandwidth. Built in FebSmart Self-Powered Technology, specially designed for high power consumption USB 3.0 devices such as industrial cameras, USB 3.0 HDD/SSD enclosures, VR-systems and VR-sensors. It also works with normal USB 2.0 and USB 3.0 devices such as USB flash drives, USB headphones, USB speakers, USB mice, USB keyboards, USB universal docking stations, USB KVM switches, USB hubs etc. Based on RENESAS NEC 5Gbps USB 3.0 host controller, it will be compatible with most Windows and Linux systems. PCIE X1 design will work on PCIE X1, X2, X4, X8, X16 slot. Mounted full size bracket on USB 3.0 card and the low profile bracket is in the package, will work on standard size PCs and slim PCs.

System Requirements:
1. Plug and Play on Windows 11, 10, 8.1, 8 (32/64bit) and Windows Server 2012, 2012R2, 2016, 2019, 2022 (32/64bit). Need to install driver on Windows XP, Vista, 7 (32/64bit) and Windows Server 2003, 2003R2, 2008, 2008R2 (32/64bit).
2. Driver free on most main stream Linux systems.

Package List:
1X FS-U2-Pro, 1X User manual, 1X Low profile bracket, 1X Mount-screw

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FS-U4L-Pro Description:

FS-U4L-Pro is a PCI Express to 4-Ports 5Gbps USB 3.0 expansion card. The 4X USB-A ports will share 5Gbps bandwidth. Built in FebSmart Self-Powered Technology, specially designed for high power consumption USB 3.0 devices such as industrial cameras, USB 3.0 HDD/SSD enclosures, VR-systems and VR-sensors. It also works with normal USB 2.0 and USB 3.0 devices such as USB flash drives, USB headphones, USB speakers, USB mice, USB keyboards, USB universal docking stations, USB KVM switches, USB hubs etc. Based on RENESAS NEC 5Gbps USB 3.0 host controller, it will be compatible with most Windows and Linux systems. PCIE X1 design will work on PCIE X1, X2, X4, X8, X16 slot. Mounted full size bracket on USB 3.0 card and the low profile bracket is in the package, will work on standard size PCs and slim PCs.

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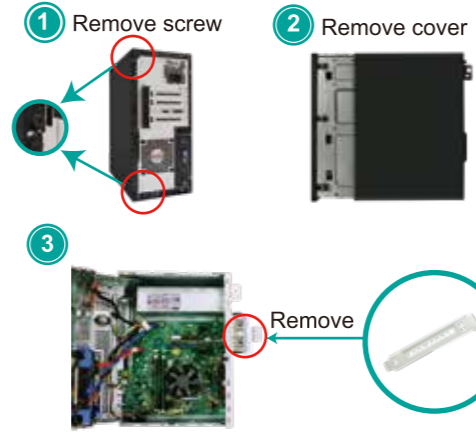
FebSmart Self-Powered Technology:

FebSmart Self-Powered Technology is a new solution to add more power supply on USB expansion cards. The old version PCI Express USB cards need to plug a power cable from desktop computers power supply unit. Some times even users put power cable on computer power supply unit, it still drops speed due to power limitation. PCI Express slot can provide 75W max almost 12V/6.25A power in total for PCIE devices. FebSmart add 1X voltage transformer chip on each USB 3.0 port to transfer 12V to 5V and provide each port 3A max power supply. In other words, each USB channel 2X ports will get 5V/3A 15W for connected USB 3.0 devices. Most of high power consumption devices just need around 4~8W which means this USB 3.0 expansion card can light up high power consumption devices simultaneously in full speed. To protect connected USB devices and users data, FebSmart built in safety electric circuit protector, voltage stable inductance, voltage stable capacitors on each USB port. Users do not worry data loss or burn USB devices anymore. Add superspeed, safe and easy install USB card on desktop PCs.

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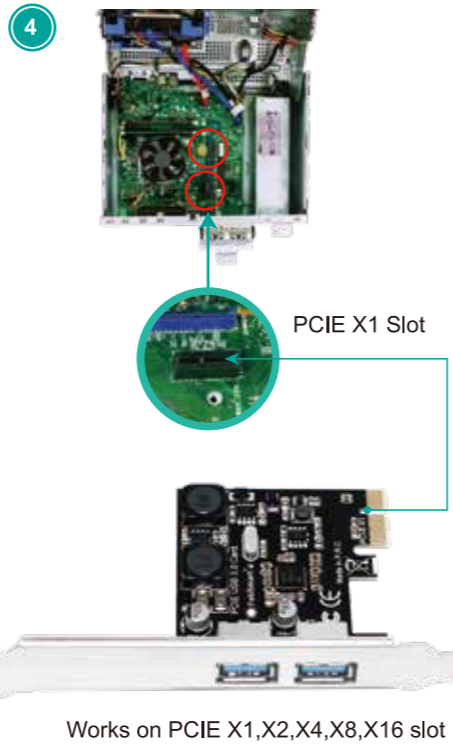
Add USB Card on Desktop PCs:

Step1, Switch OFF PC, unplug computer from main socket, unplug power cord and other connected peripherals. Remove the cover from computer case.



Step2, Find correct PCI Express slot from motherboard, insert USB 3.0 card into an empty PCI-E slot. If using slim PCs, users need change to the low profile bracket which is in the package.

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Step3, Reattach the computer cover, and put back removed peripherals, power on desktop computer.



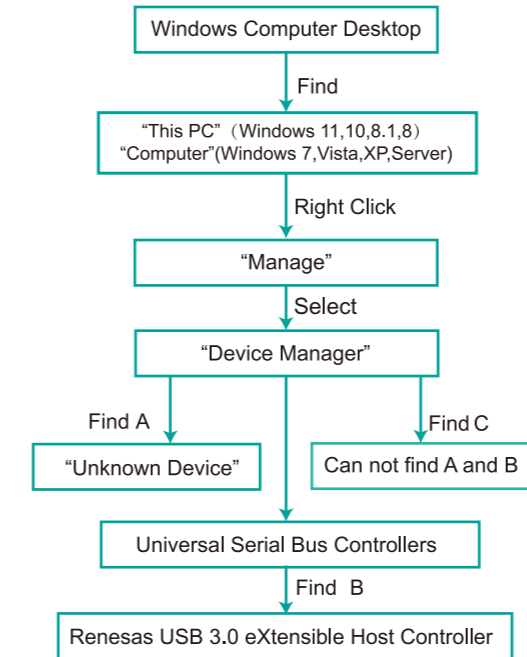
Added on USB Ports

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Check If USB Card Was Detected on PCs:

1. Users can plug universal USB devices such as USB flash drive, keyboard, mouse etc. Check if computer can find these devices. If system read USB devices, means no need to install driver, can use these added on USB 3.0 ports now.

2. Find this added on USB card hardware in Windows system "Device Manager" and check if system read it.



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A, Means PCs find hardware correctly, need to install driver.
B, Means USB card hardware was detected correctly and system loaded driver already, users can use it now.
C, Means PCs can not find the added on USB card and not load driver for USB card. Users need to re-plug USB card on motherboard PCIE slot, and better change to an active PCIE slot for USB card.

Install Driver on Desktop PCs:

1. FS-U2-Pro and FS-U4L-Pro are based on Renesas NEC host controller. These models share the same installation steps on Windows 11, 10, 8.1, 8, 7, XP (32/64bit) and Windows Server 2003, 2003R2, 2008, 2008R2, 2012, 2012R2, 2016, 2019, 2022 (32/64bit) systems.
2. Windows 11, 10, 8.1, 8 (32/64bit) and Windows server 2012, 2012R2, 2016, 2019, 2022 will load driver automatically. If it can not read on your system or read "Unknown Device" in Windows "Device Manager" with "Error Code 10", users better change to another PCIE slot for this USB card.
3. Windows XP, Vista, 7 (32/64bit) and Windows server 2003, 2003R2, 2008, 2008R2 (32/64bit) system will read as "Unknown Device" in "Device Manager", users need to install driver, afterwards it will work.
4. FS-U2-Pro and FS-U4L-Pro support plug and play on most main stream Linux kernel systems.

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Step1, Users can download driver from our site www.febsmart.com, then release the ZIP file, find the "Setup.exe".

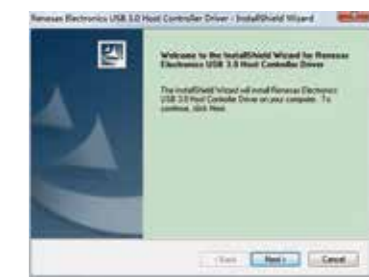
Step2, Complete driver installation.

1. Double right-click "Setup.exe", and Waiting files ready to install.



Setup.exe

2. Click "Next".



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3. Accept the license, click "Next".



4. Click "install".



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5. Waiting for driver installation.



6. Click "Finish", and start using the new USB ports.



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User FAQs:

1. How many USB 3.0 devices will be lighted simultaneously? Actually with FebSmart Self-Powered technology, users can light up high power consumption devices in all added-on USB ports.
2. Why do USB devices deliver slower speed than USB 3.0 design speed? The USB 3.0 design speed 5Gbps/625MB/S is a theoretical speed, normal users' devices can not reach the test condition, so the real connection speed will be less than 625MB/S.
3. Why are USB 3.0 HDD/SSD enclosures running low speed? When PC's using NVME/SATA 3.0 SSD disks, the USB 3.0 HDD/SSD enclosure's test speed will be affected by the inside HDD or SSD. SATA 3.0 SSDs will get over 300MB/S, SATA 3.0 HDDs will get about 100~200MB/S. When using SATA 2.0 HDDs, speed will be less than 100MB/S.
4. Why do USB flash drives get a very low speed? Check if the flash drive designed on USB 2.0 or USB 3.0. The USB 2.0 flash drives will get a USB 2.0 speed. The USB 3.0 flash drives had one read speed and one write speed when it was produced. Even though the manufacture claim it is USB 3.0 flash drive, they may only design the read speed on USB 3.0 but the write speed is much slower. The real test speed will be also affected by user PC's disk type when copy in files. The PC with SSDs test speed will be faster than the PC with HDDs.
5. Do these USB ports still support external USB hubs? Yes, all the added-on ports support multiple ports USB hubs.
6. PCs report error code 10, how to fix this? Error Code 10 means this PCIE slot is not active or no bandwidth. 1. Some PCIE slot was disabled in BIOS, users can enable PCIE slot in BIOS. 2. Some PCIE slot shared bandwidth with other slot, once that slot was occupied, this PCIE slot will no bandwidth. In this case, change to another PCIE slot. 3. Some motherboard manufacture defined PCIE slot function, in this case, users better call motherboard manufacture to get more help.
7. Where can I get tech support? Contact us: support@febsmart.com Driver download: www.febsmart.com

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