

USB / PCIE / M2 / mSATA / MiniPCIE / EC / PCI / LPC Diagnostic Card

KQCPET6 v8.0 Type B (the upgrade to last v6.0 version)

(Type B comes with the extra USB-alone and the Android device diagnosis features than Type A)

User Manual Ver 3.0



New Qiguan APP

New Qiguan APP is smart and easy to use

Displaying the results automatically and giving the answers instantly

Most answers can be found in the APP



Attention: you have to Scan QR

Code to get the mobile application

before try our product (Support

android 5.0 & higher version only)

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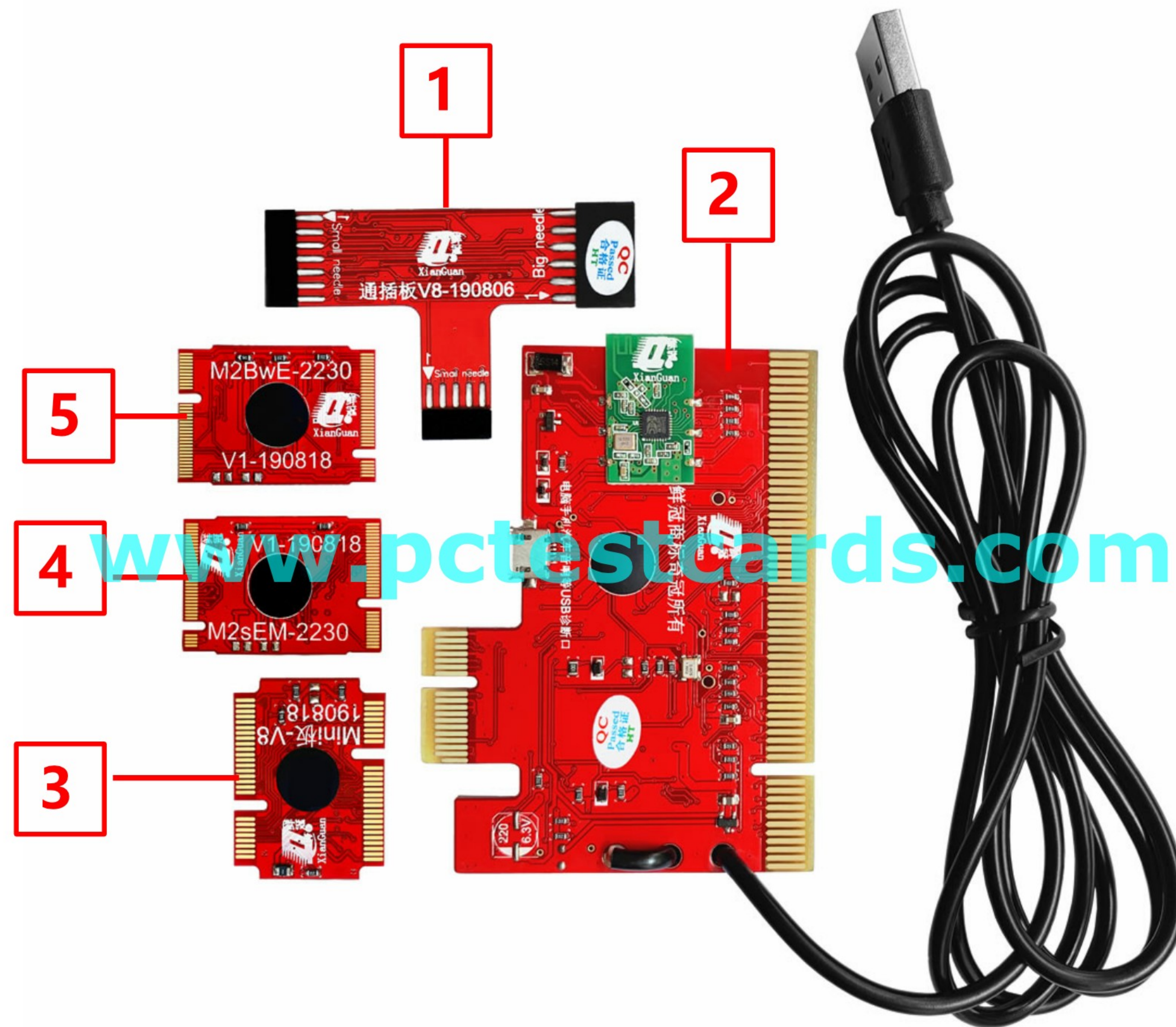


Accessories (Front View)



- | | | |
|-----------------------------------|--|-------------------------|
| 1. Master diagnostic board | 2. android Type-C converter | 3. 4pin EC cable |
| 4. USB data cable | 5. Android OTG adapter | 6. 16Pin data cable |
| 7. T-card adapter | 8. B, E key M.2 adapter | 9. M, E key M.2 adapter |
| 10. miniPCIE, mSATA combo adapter | 11. storage case with sponge insulator | |

Accessories (Rear View)



1. T-card adapter

2. master diagnostic board

3. miniPCIE, mSATA combo adapter

4. M, E key M.2 adapter

5. B, E key M.2 adapter

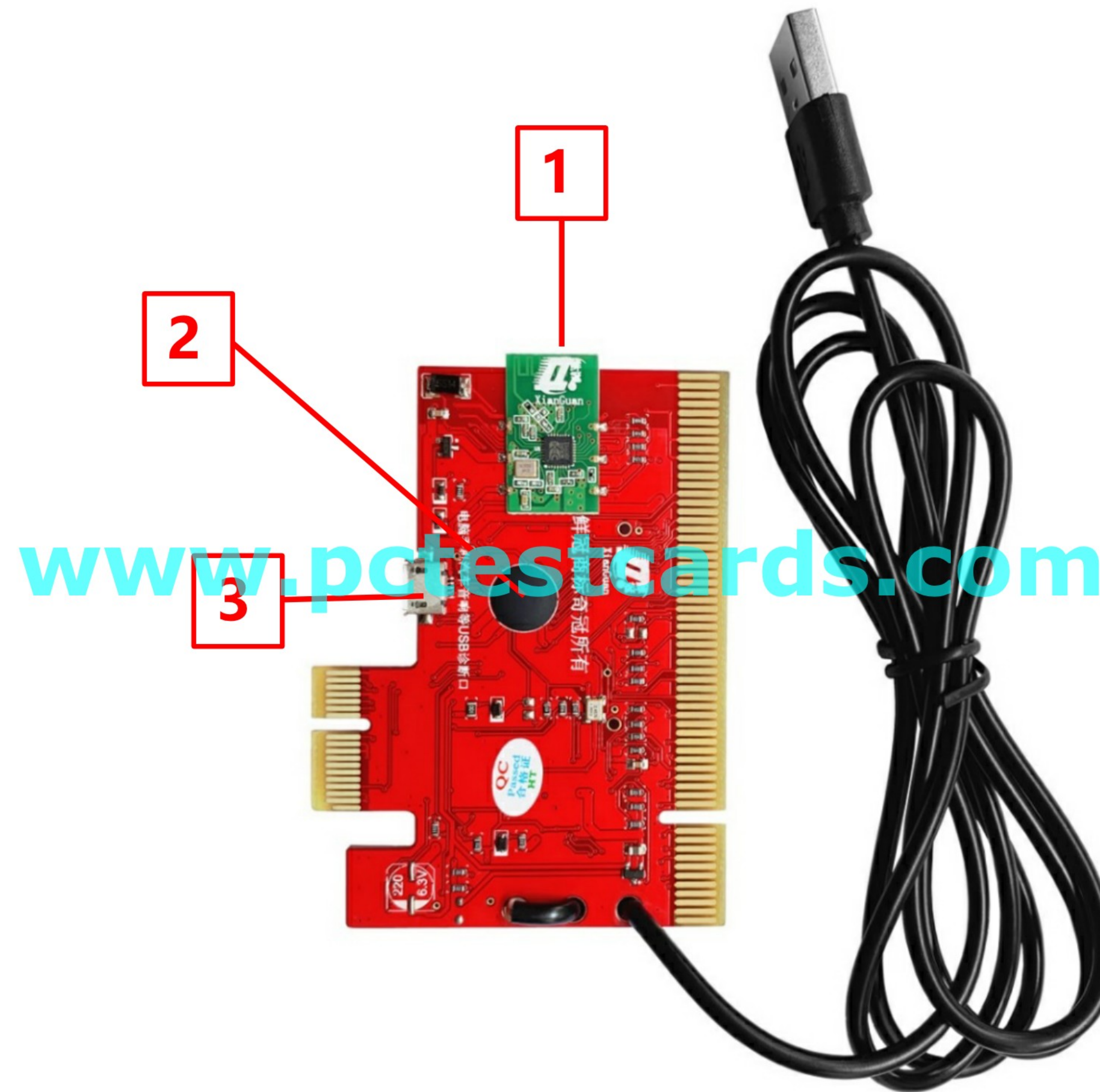
Master Diagnostic Board (Front View)



1. Blue tooth 5V power connector
3. USB communication LED
5. EC bus connector
7. Standard PCI bus connector
9. AUX3.3V LED

2. 16Pin data cable socket
4. PCI-e bus connector
6. Dual IC chips
8. Android device communication LED

Master Diagnostic Board (Rear View)



1. blue tooth module

2. IC chip

3. microUSB connector

USB Data Cable

1. This cable can be used for the USB diagnosis feature on this TypeB diagnostic kit. The USB diagnosis feature allows us to diagnose the PC and laptop computers as well as the other USB enabled devices.

2. When using the LPC diagnosis feature on the master diagnostic board, this USB cable is purely for the purpose of supplying the electricity power to the master diagnostic board, this USB cable does not take role in the diagnosis.

It is needed to connect this USB cable first to the SAME computer USB power source before connecting the LPC connector to the PC motherboard LPC ports. **(Connecting this USB cable to any other USB power source during the LPC diagnosis may causing the diagnosis faults).** The smaller microUSB connector should be connected to the master diagnostic board same microUSB connector, the other end of the standard USB connector should be connected to the SAME computer USB port.

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3. we may also use the microUSB charging cable from our Android smartphone for substitution.



Smart Sewing Machine Diagnosis

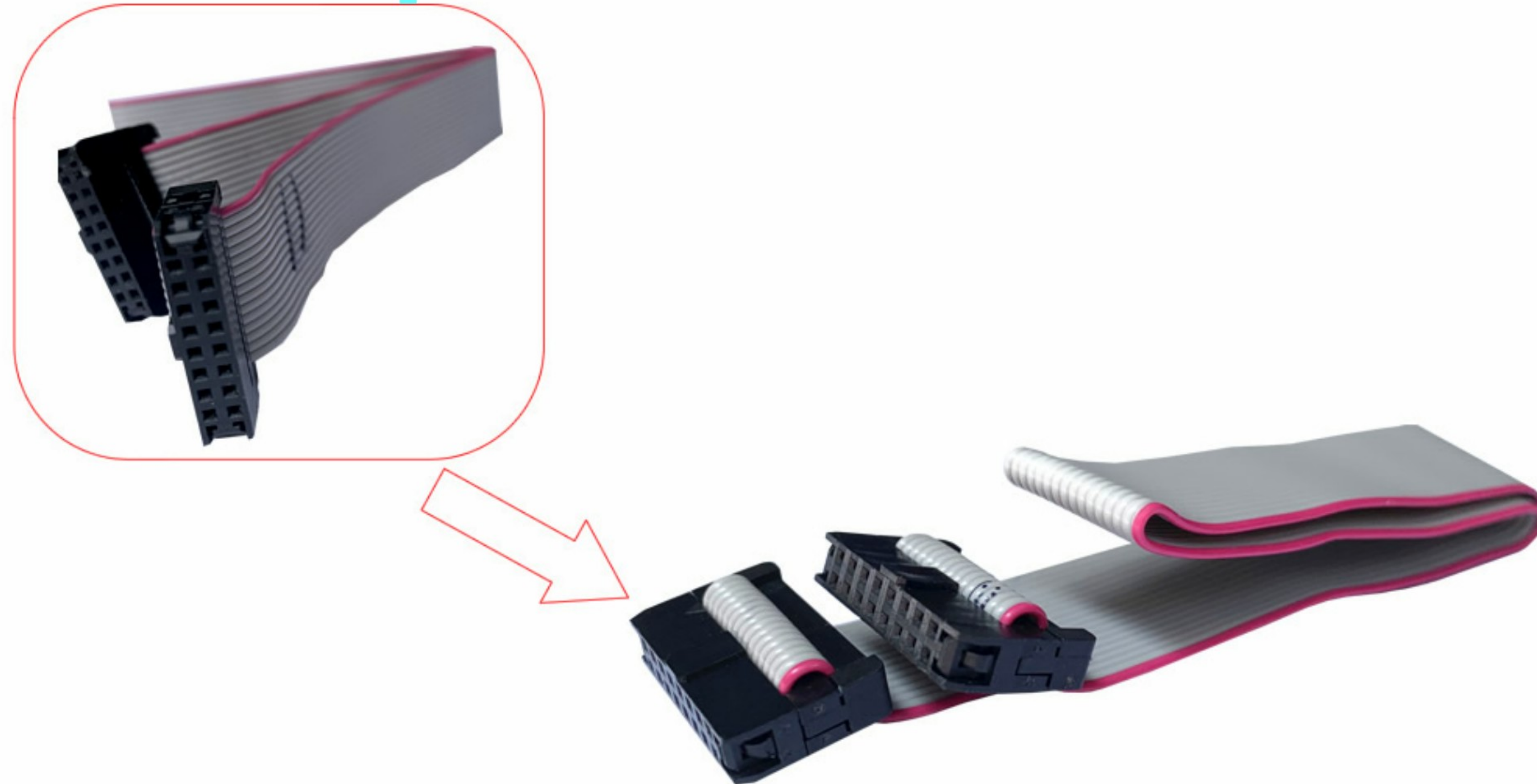


Smart TV Diagnosis



16Pin Connection Data Cable

- This bundle cable is for connecting the master diagnostic board to the other adapter cards including the T-card, the miniPCIE, the mSATA and the two M.2 adapter cards
- Anti electric and static interference, delivering the accurate diagnostic data with great compatibilities



T-Card Adapter (LPC Connectors)



PCIe+LPC Dual Interface Bus Diagnosis

PCI-E 16X+LPC test



LPC Alone Diagnosis



mSATA and miniPCle Dual Interface Bus Connectors



Laptop Motherboard miniPCI-e Connection



Installing the miniPCle Adapter Card to the Laptop miniPCle WIFI slot



mSATA Connection



M and E Dual Connectors on the M.2 Adapter Card



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B and E Dual Connectors on the M.2 Adapter Card



Type-C Converter for the Newer Android Smartphones and Tablets Diagnosis



OTG Cable



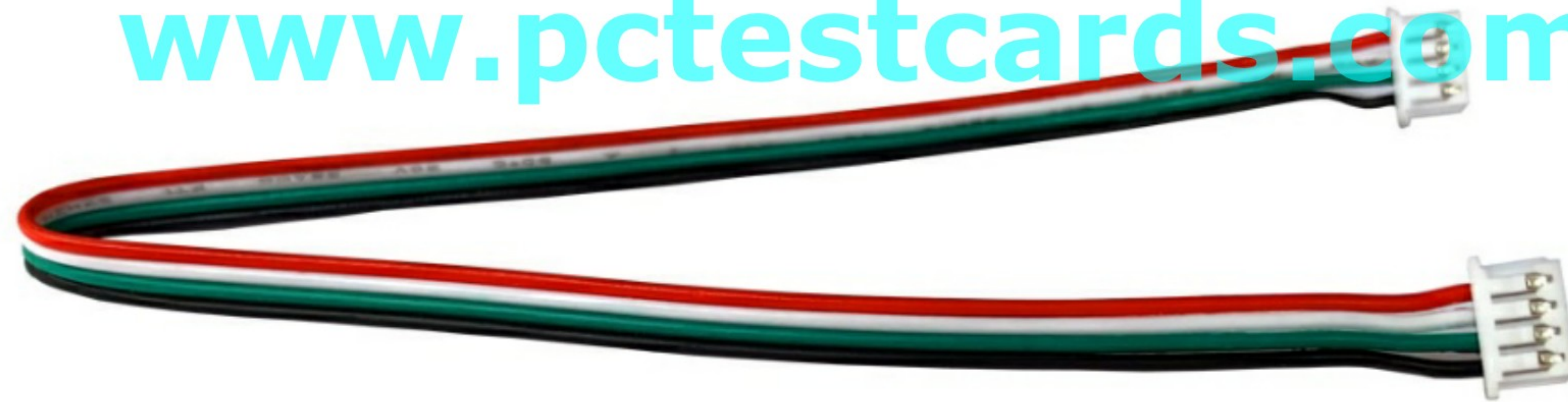
Newer Android Smartphone with TYPE-C Connection

earlier Android is using the microUSB interface



EC Connection (4Pin) Bundle Data Cable

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EC Connection

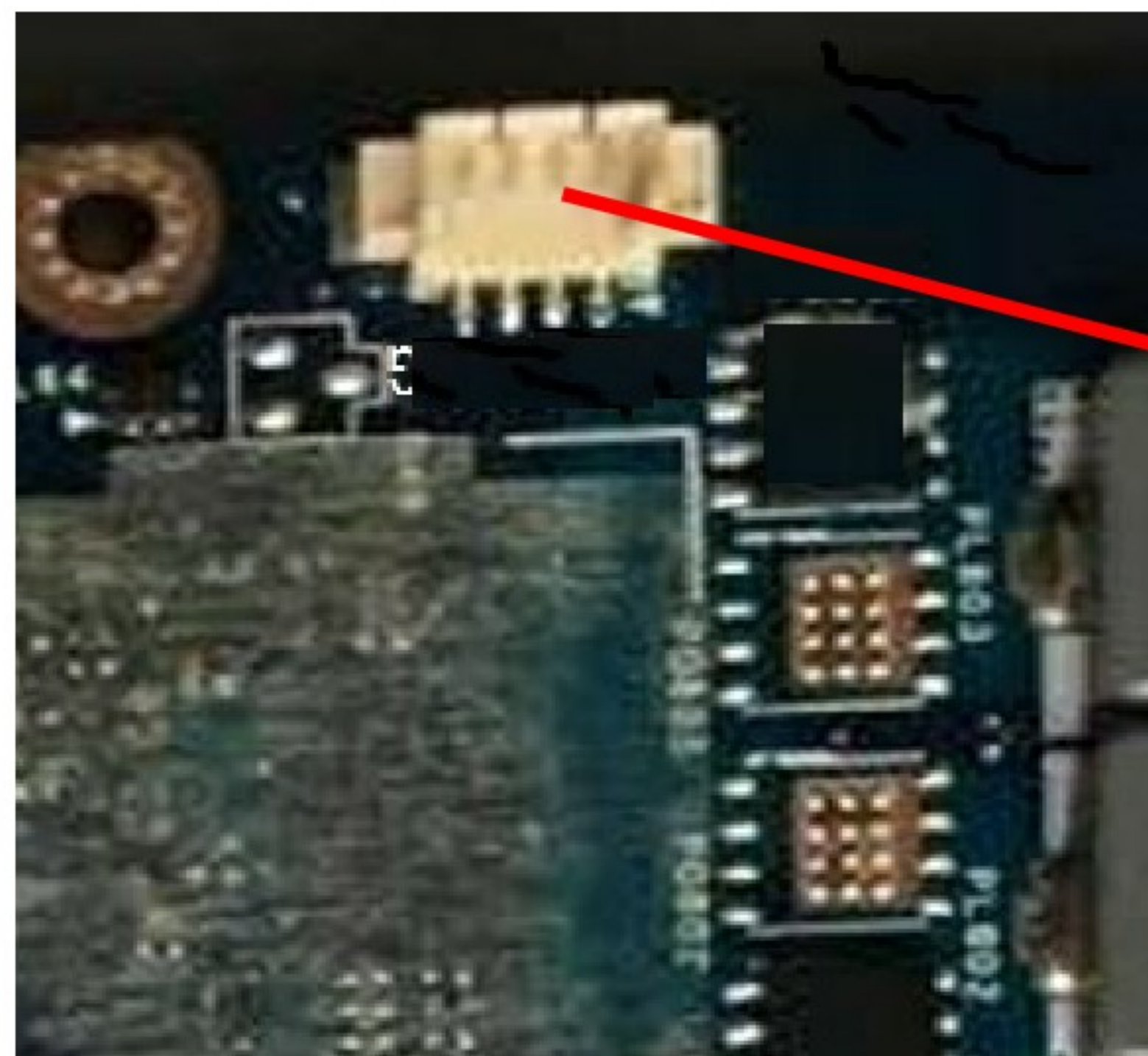
- This cable is specifically to be used on those laptop motherboards with the EC-debug connectors.
- Use this EC bundle cable to connect the master diagnostic board to the laptop motherboard EC-debug connector.

EC bundle cable



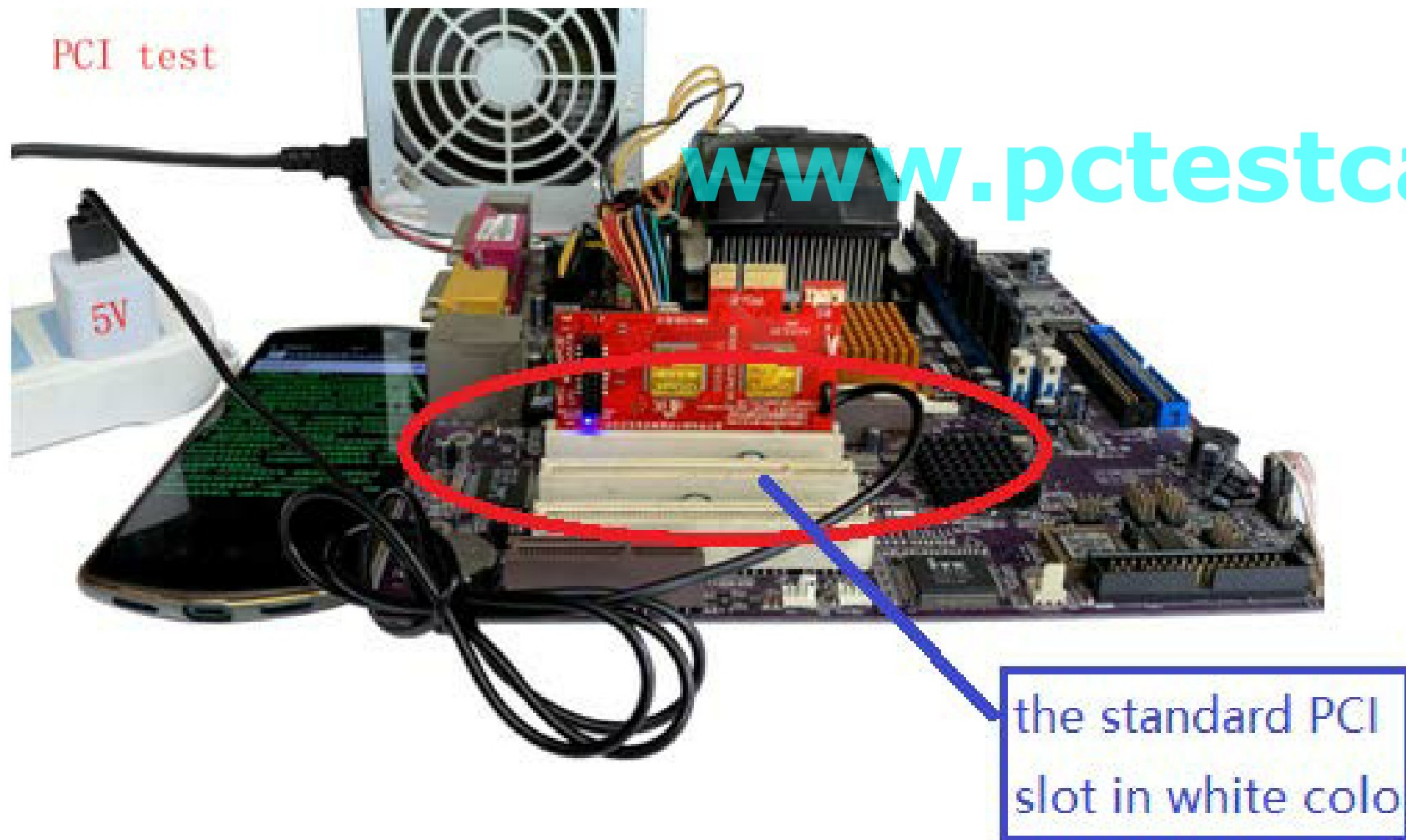
diagnostic board
EC connector

motherboard
EC-debug
connector



Precautions for the standard PCI / PCI-e Diagnosis

- Must use the standard PCI first when there are Both PCI and PCIe connectors
- When there are only PCIe ports, install the diagnostic card to the motherboard PCI-e x1 / x4 / x8 / x16 by sequence
- **Warning:** Never installing the master diagnostic board PCIe connector to the other non-PCIe connectors such as the standard PCI, AGP or other connectors otherwise the diagnostic card could be fried when the power is turned ON
- If need help, please contact seller with the motherboard model number



PCI to PCI Correct



PCIe to PCI WRONG

Working with the Motherboard PCI-express x1 Slot

- If there are different PCIe slots on the motherboard, please install the master diagnostic board to the PCI-express x1, x4, x8, x16 slots in sequence. Some motherboards only PCIe x1 slots pass the POST codes.



PCIe x1 correct installation



PCIe x16 correct installation

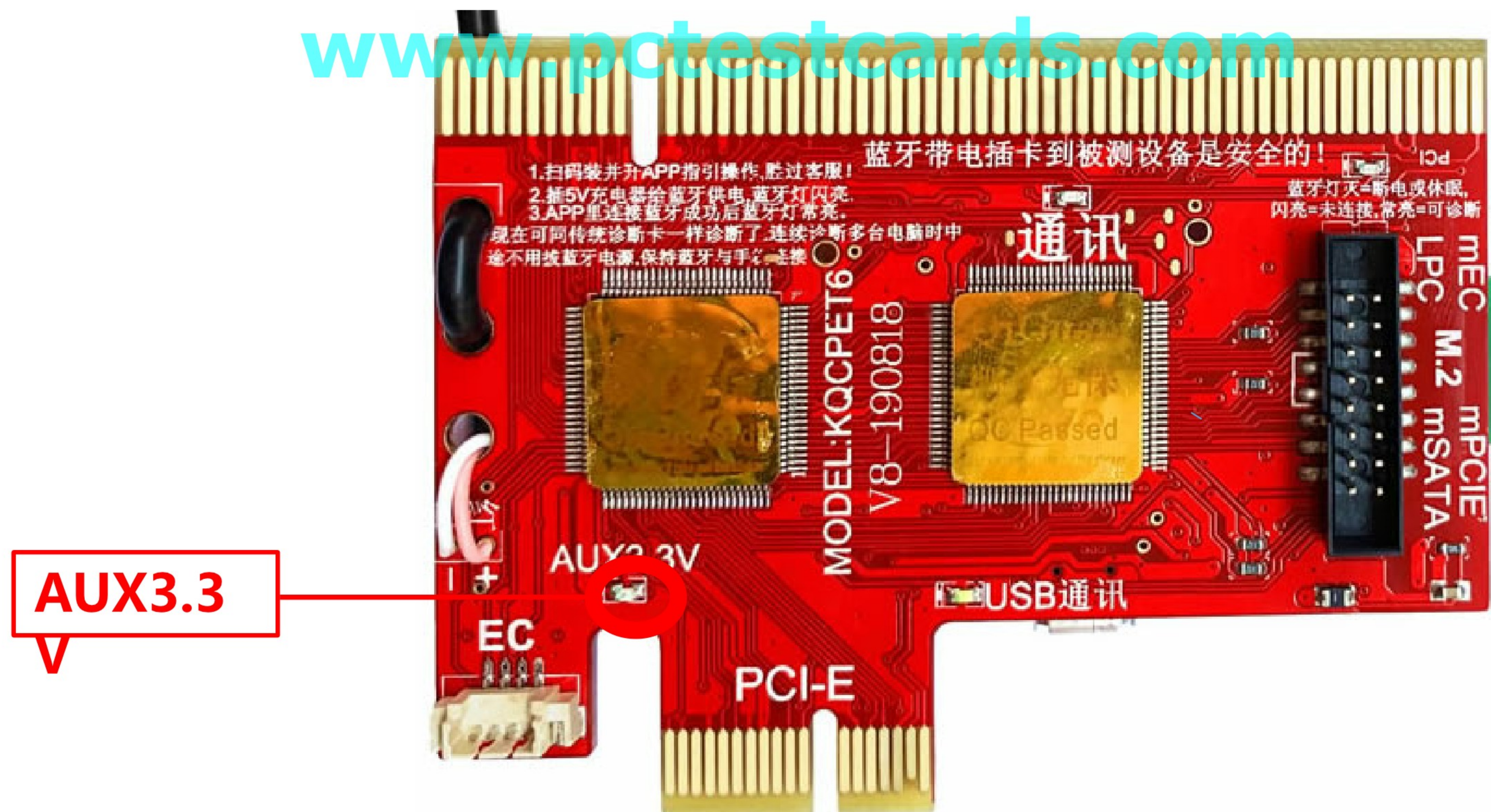
Bluetooth LED

This LED flashes when the USB cable is connected to the 5v power source. When the master diagnostic card is configured to connect in the APP, this LED remains steady ON showing the Bluetooth communication is ready and standby



AUX3.3V LED

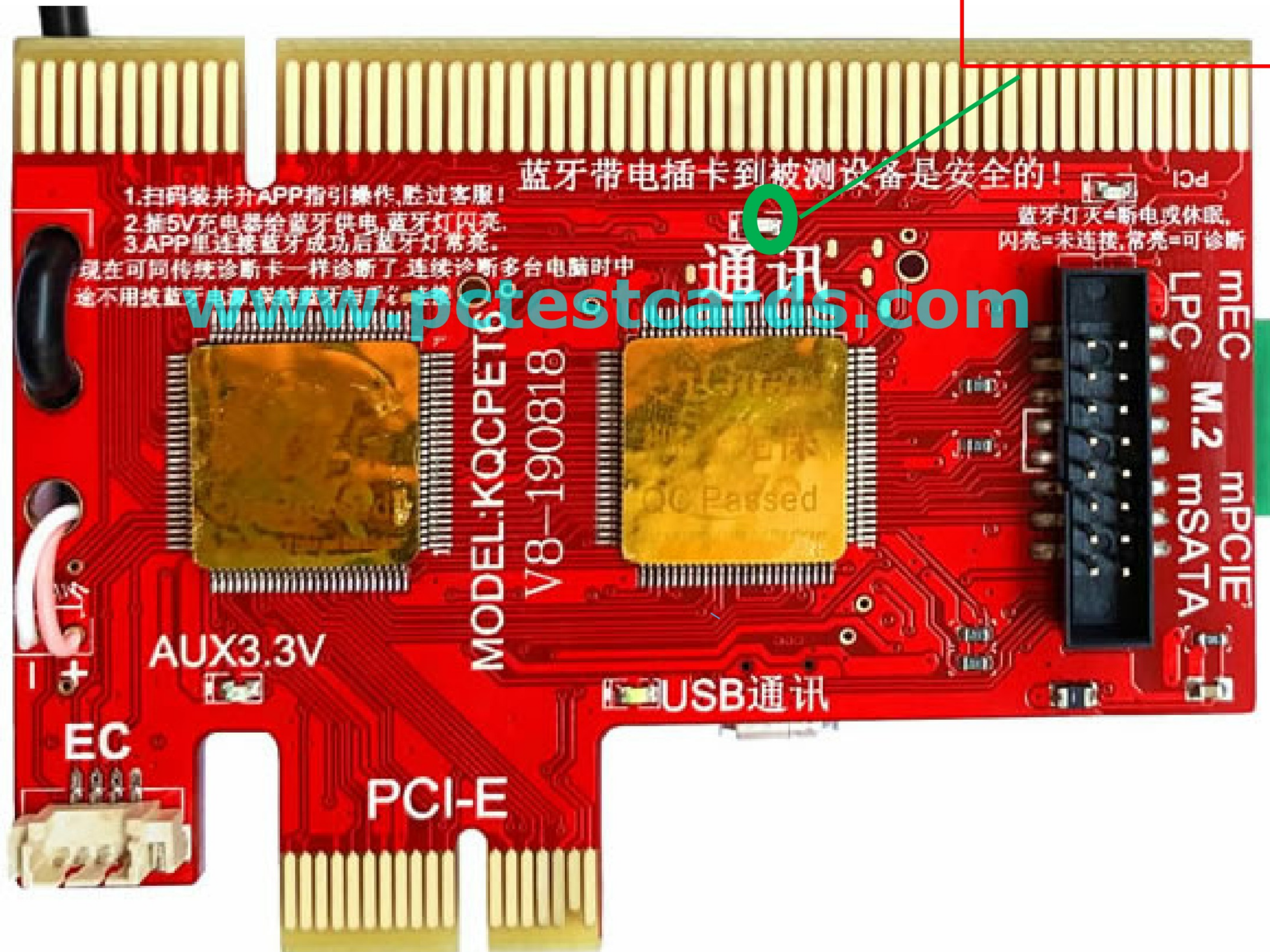
- When the master diagnostic board is installing to the motherboard standard PCI or PCIe slot while the motherboard ATX power is also connected to the main, no need to power on the PC, this LED will remain ON
- LPC connectors have no AUX3.3V voltage, this LED will remain OFF
- If this LED is dim at the time the PC is powered ON, please check the Bios to see if the energy saving mode is enabled



Communication LED

If this LED is steady ON, it indicates that the device being tested has been powered ON

Communication LED



How to use

- 1、 Scan the QR code and install the App. When the Qiguan webpage loads, click on the Android screen Top Right and select '**open with browser**', then in the middle of the Qiguan page, click on the characters marked in RED. The Apk file will start the download and the installation, please grant your android device the rights to proceed and complete the App installation
- 2、 Connect the USB cable to the 5V power to see the flashing blue LED on the master diagnostic card. Then click on the Top Right "■" and following the on screen instructions to proceed...
- 3、 Next is pairing the Android phone with the diagnostic kit name "QiGuanBT10" using the Bluetooth connection. The pairing key is : 1234, this bluetooth pairing only need to do one time, once paired no need to repeated this pairing process each time we need to use the diagnostic kit
- 4、 When there are more than one diagnostic card available in the surrounding area, please look for a place without the other diagnostic kit, power on the diagnostic board and during the pairing process, write down the Bluetooth Address. Next time, just select the same device with the same address to start using the own diagnostic kit. Please see the following for the example of looking up the Bluetooth Address in the App.
- 5、 Each Qiguan KQCPET6-v8 master diagnostic board was named "QiGuanBT10", but the each Bluetooth Address is unique. Please select the corresponding Bluetooth Address diagnostic board to pair/ to connect before use

Bluetooth 5V Power Connection



To start with, please scan the following QR code and install the Qiguan APP

⚠ Attention: you have to Scan QR Code toget the mobile application before try our product (Support android 5.0 & higher version only)

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Bluetooth Pairing Using the Correct Device Address and the Default Key

For example, in this case :

The Device Name is :
QiGuanBT10

The Device Address is :
18:4B:10:0C:43:34

The Pairing Key is :
1234

If the first time in the App not seeing the QiGuanBT10, please check if the diagnostic card is powered ON and the Android bluetooth is switched ON as well, and then rescan the bluetooth device to add the QiGuanBT10 device manually. After this, get back to the App to pair the QiGuanBT10 and write down the bluetooth address if needed.



USB Diagnosis

1, This USB diagnosis feature not only works on the computers with the USB ports but also works on the Android 2.0 or above common Android devices such as the smartphones, tablets as well as the other USB2.0 enabled devices not yet listed here

2, There are many devices come with the USB interface such as the Smartphones, Intelligent home appliances, AI devices...etc. This diagnostic kit is capable of diagnosing if the major components are working or not on these machines.

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3, Save hassles of taking apart the computers and devices, easy diagnosis

4, The diagnostic results show in the App as 'Good' if the motherboard, the CPU and the memory RAM are working; It not, the App shows 'Bad' instead. It is clear and easy to see the results

5, Please take note that most devices with the USB2.0 (or above) ports are ok to be diagnosed except that a few devices which may come with different designs so that the USB ports may not support such feature.

PCI-e x4 / x8 / x16 Diagnosis

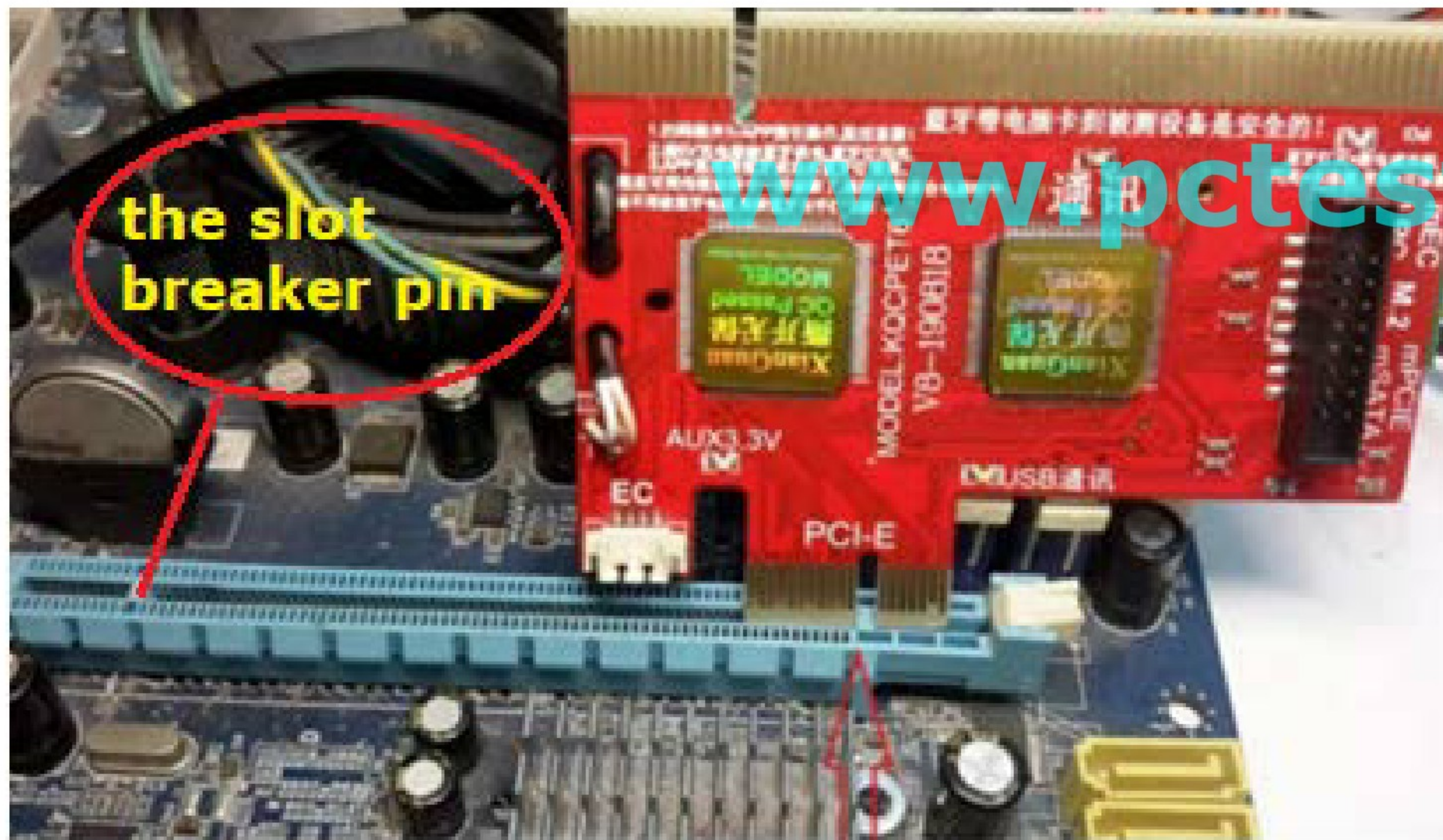
- The master diagnostic board is ok to be installed to the motherboard PCI-express x4 / x8 / x16 slots as well besides x1 slots but please take note that some motherboards only the PCI-e x1 slots get the diagnosis codes. The following picture shows the correct installation of the master diagnostic card on the PCI-e x16 slot



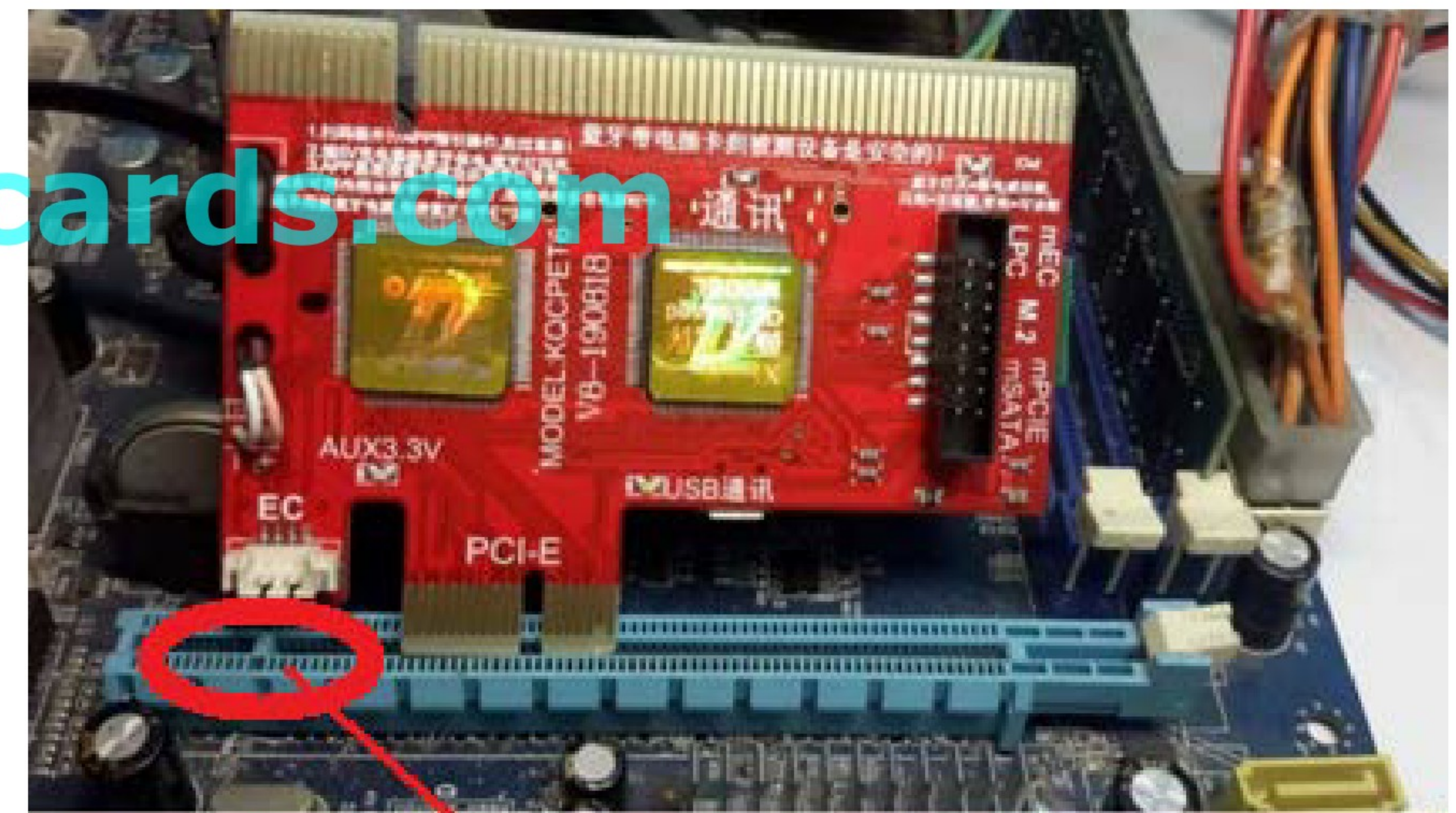
correct installation on the PCI-e x16 slot

Wrong Installation of the Diagnostic Card on the PCI-e x4 / x8 / x16 Slots

- When there are more than one PCIe slot on the same motherboard, it is ok to use the each different PCIe slot. But please kindly take note that the wrong installation may cause the shorts to the diagnostic board.
- Here are some examples showing the wrong installations of the master diagnostic card on the PCIe x4 / x8 / x16 slots



Wrong installation 1:
The diagnostic card should not be installed on this end. It can only be installed on the LEFT side of the slot and must align with the slot breaker. The wrong installation may cause the damage to the master diagnostic board.

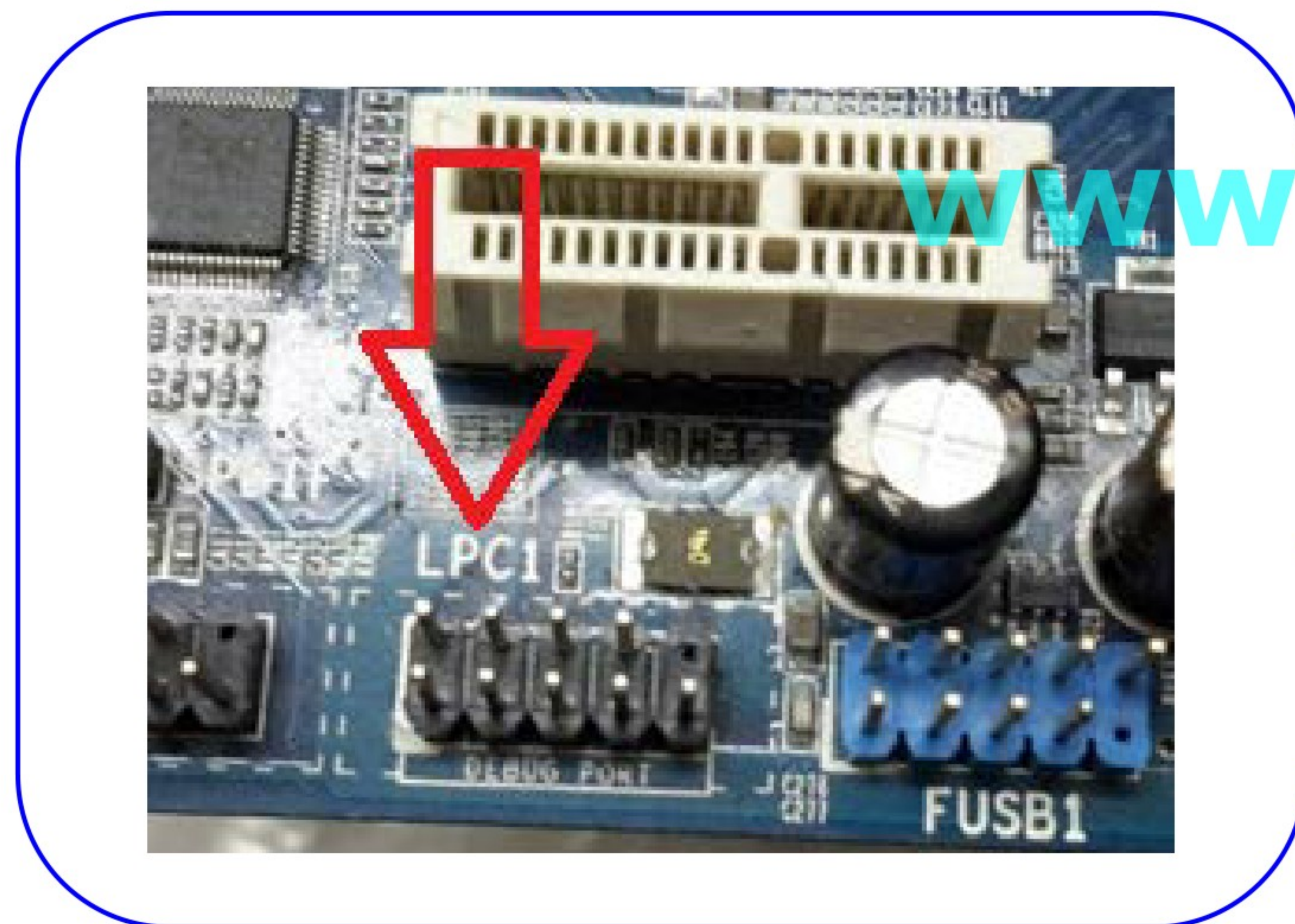


Wrong Installation 2 : Installing the diagnostic board to the motherboard without aligning with the slot dent breaker on the Left of PCIe x16 slot. Risk of shorting the boards.

the slot dent breaker

LPC Diagnosis and the Motherboard LPC-DEBUG Connectors

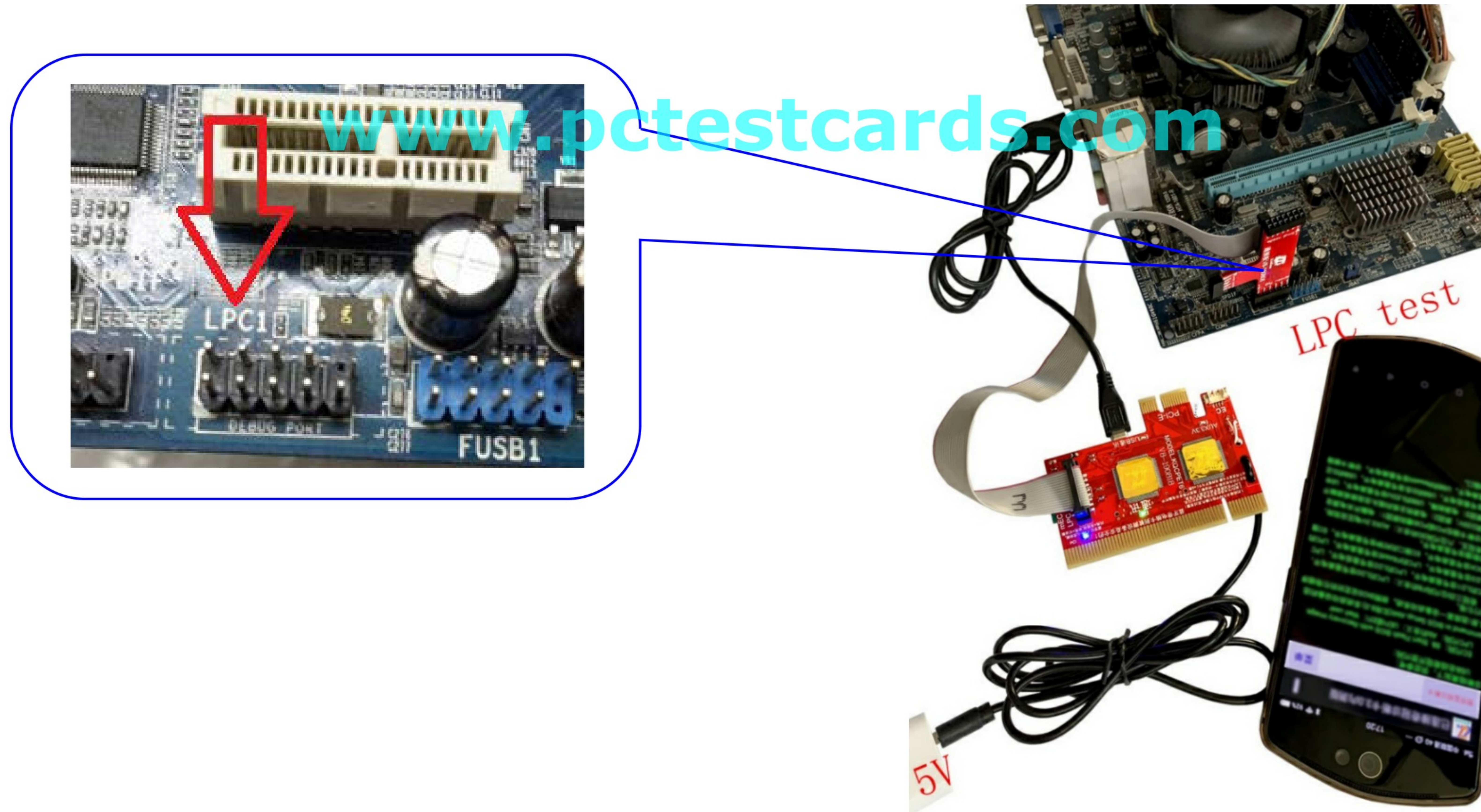
- This LPC diagnosis works on the motherboards with the LPC-debug ports.
- Uses of the corresponding LPC connectors on the included T- card to match to the LPC debug port pins on the motherboard.
- The T-card LPC adapter make it easy to use LPC diagnosis feature on the master diagnostic board.



**This end 2x5 pins layout
LPC connector is more
suitable for the common
2x5 pins motherboard LPC
debug ports**

LPC Diagnosis Wiring

- In order to use the LPC diagnosis, the motherboard must come with the LPC debug port for the T-card LPC connector to be connected to.
- The small microUSB connector on the microUSB cable should be connected to the master diagnostic card microUSB socket. The other end of the microUSB cable should be connected to the same computer standard USB port. Then, connect the master diagnostic card to the T-card using the included 16pin data cable. Powering on the PC, and see the final diagnostic codes.




Advantages of Using the USB for Supplying Power during the LPC Diagnosis

USB cable in this TypeB kit is for performing the USB-alone diagnosis feature. But when performing the LPC diagnosis in this kit, the USB cable will be purely for supplying the power voltage to the master diagnostic board

1. USB is a commonly used interface which comes with the standard 5v power. It is easy to use. www.pctestcards.com
2. Not relying on the motherboard 3.3v LPC voltage supply. Directly drawing power from the USB ports to allow the LPC debug port diagnosis even when the LPC port is having the faulty power voltage.
3. Reduces the stress on the LPC debug ports to avoid the risk of inaccurate diagnostic results.

T- Card Adapter

- There are total 3 different connectors on the T-card adapter for LPC diagnosis. The small white arrows  indicate that the connection pin is at the first pin, pin1 position and we need to install the adapter card to the motherboard LPC debug port with the same first pin position matching each other.
- This pin1 matching and installing method applies to all 3 LPC connectors including the large pins layout and the small pins layout connectors
- The LPC connectors come with all orientation protection design. If there are LPC debug ports with over 12pins or more, no need to care which pin is the starter pin1, just install the T-card adapter to the LPC debug port starting at the each different pin combinations and orientations until there are different changing diagnosis codes.
- In the LPC diagnosis, we need to use the included 16pin data bundle cable to connect the master diagnostic board and the T-card adapter. And then, connect the motherboard and the master diagnostic board using the USB cable. Please consult the above section for the USB cable connection in LPC diagnosis for more details.

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Large pins connector

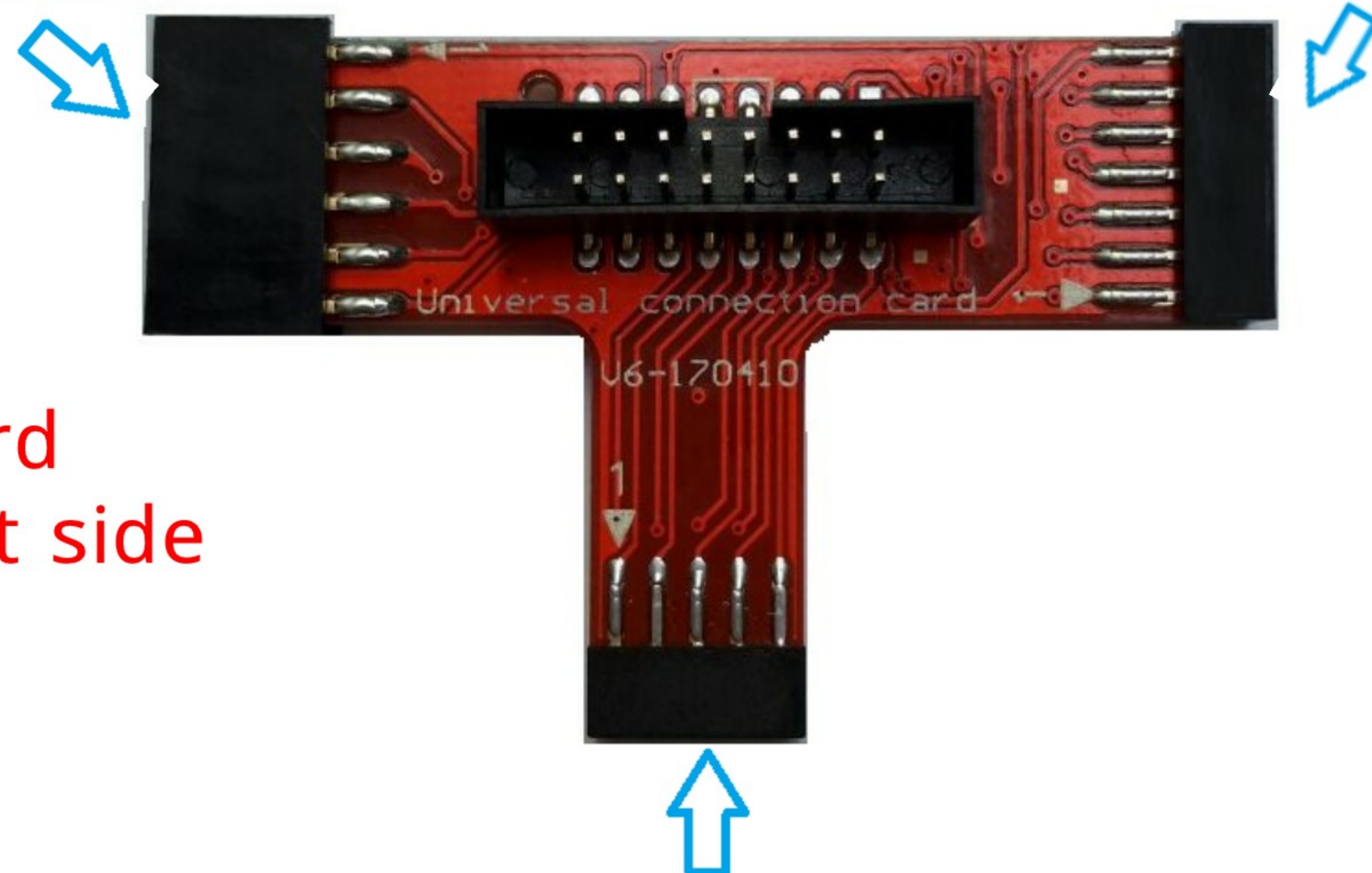
Small pins connector

T-card Front side

T-card Back side

Standard and more commonly seen 2 x 5 pins LPC

Standard and more commonly seen 2 x 5 pins layout LPC




LPC Automated Diagnosis

- 'Automated' here means that the diagnostic card is capable of self scanning and identifying the different motherboard LPC debug port pins layout.
- 1. one single T-card works on all LPC connectors. No need other converters or jumpers.
 - a, compatible to the known and the new invented LPC debug ports. Upgradable chipsets to meet the rapidly changing market needs.
 - b, the adapter is fault-proof to prevent the damages from using the diagnostic card in the wrong way when connecting to the motherboard LPC pins debug ports.
- 2. no need to care the specific brand or model of the motherboard during the repairs, hassle free.
- 3. installing the T-card at either direction to the motherboard LPC debug ports, no worry of wrong installation could have causing the damage.

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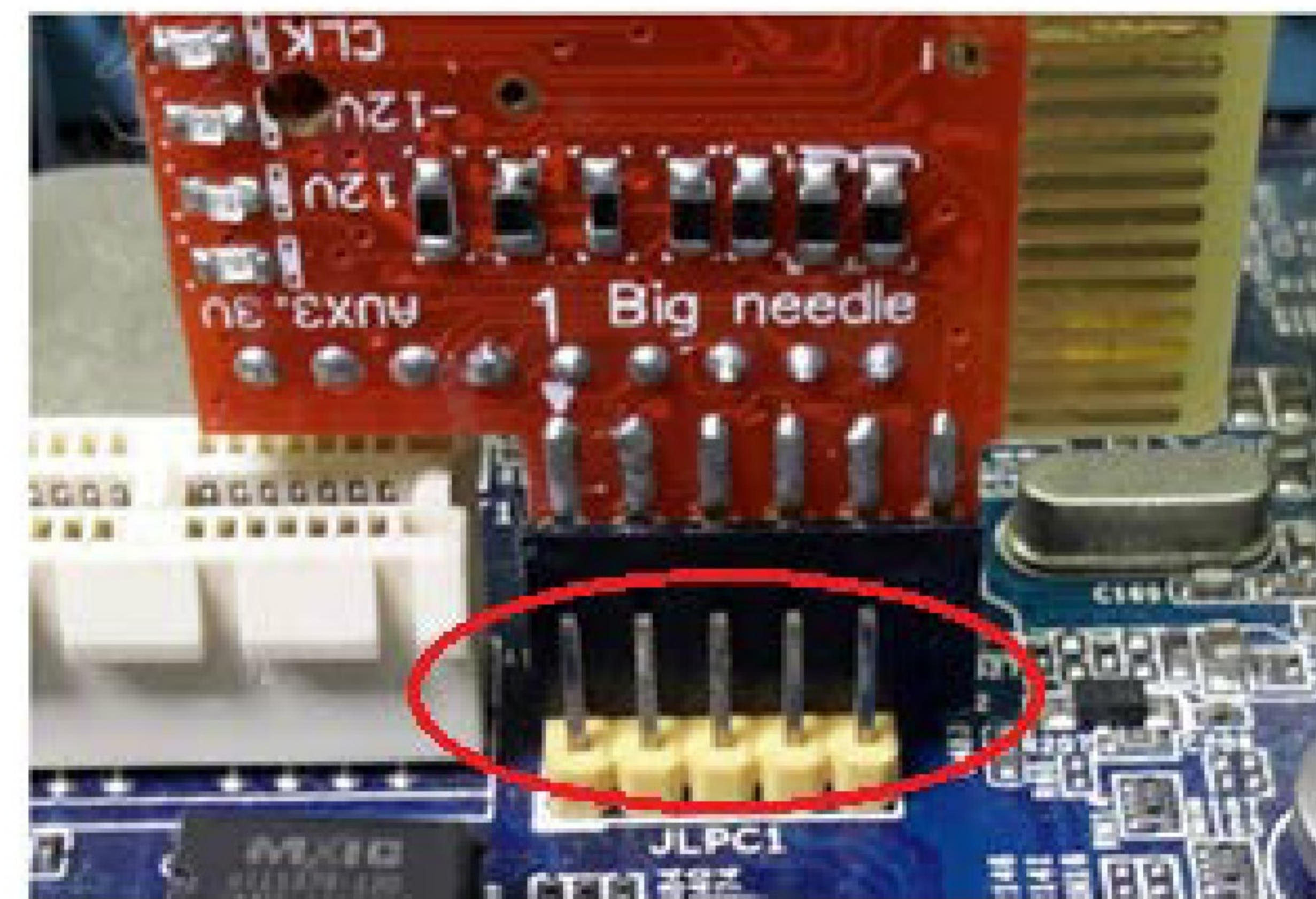
LPC Pins Connection

- There are small white arrow signs  on the T-card indicating the first pin (pin1) position. When plugging the T-card LPC connector to the motherboard LPC debug ports, please align the pin1 to the debug ports first pin position then seat the T-card.
- Installing to the motherboard LPC pins incorrectly will not cause the damage to the motherboard and there will not be the diagnostic codes. We can try the different pins connections until the different diagnostic codes showing up.

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Right



BOTH rows of the LPC pins need to be connected

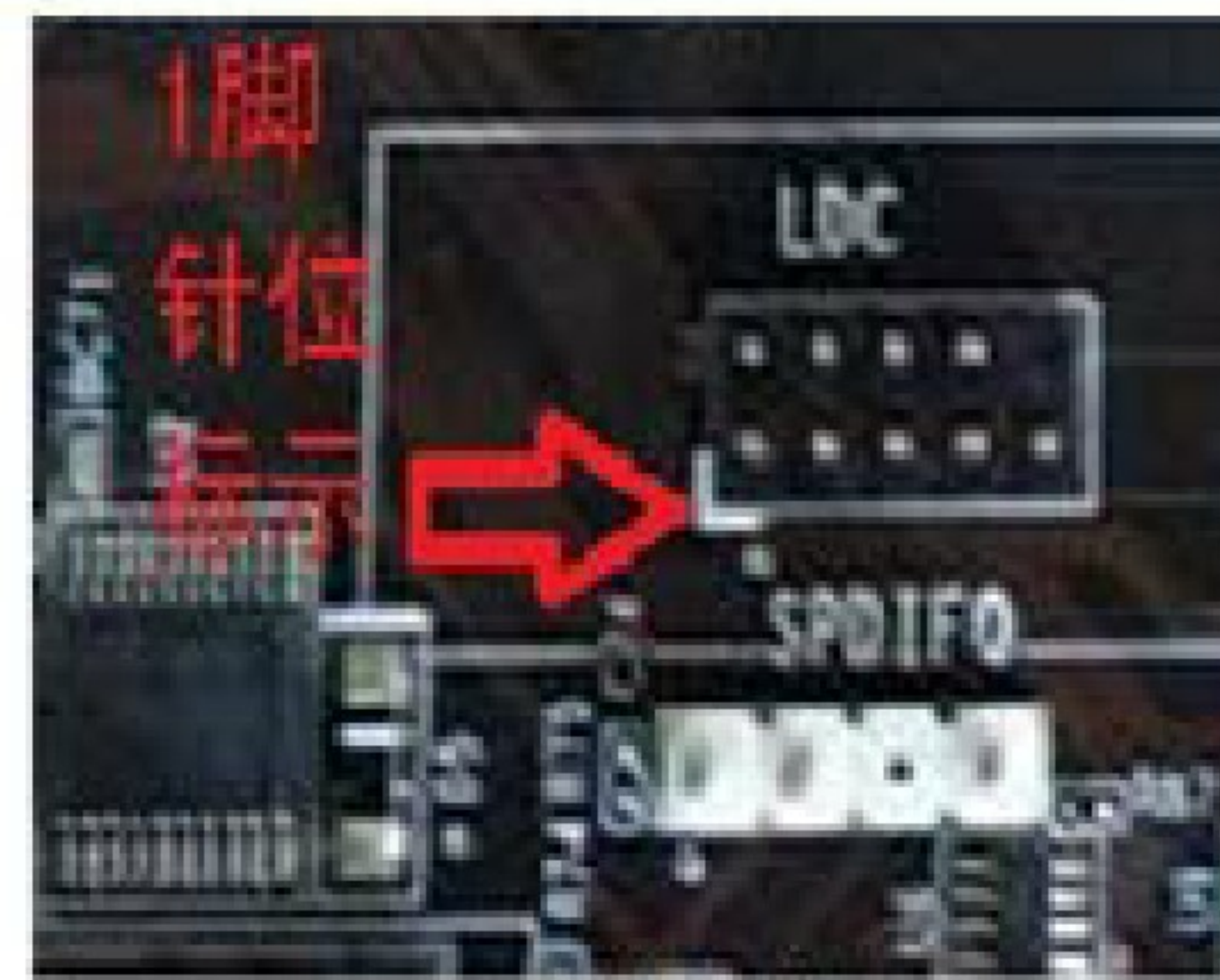
Wrong

Identify the LPC Debug Ports on the Motherboards

The following red pointers indicate the first pin (pin1) on the motherboard LPC debug ports, we need to match this pin1 to the T-card pin1 during the installation.



华硕



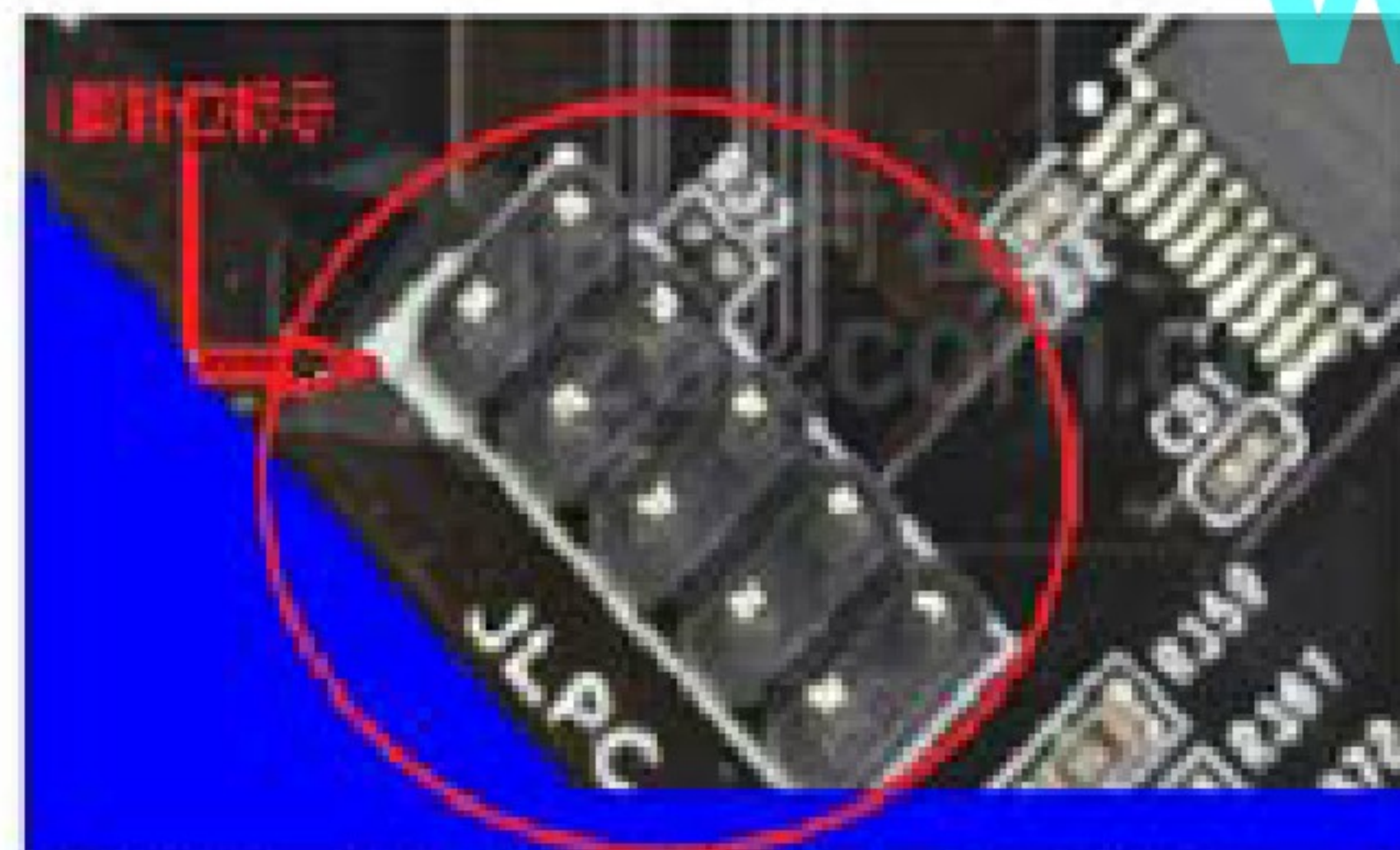
精英



梅捷、盈通、七彩虹、铭瑄、昂达、索泰、微步、杰微



冠盟、清华同方、msi微星

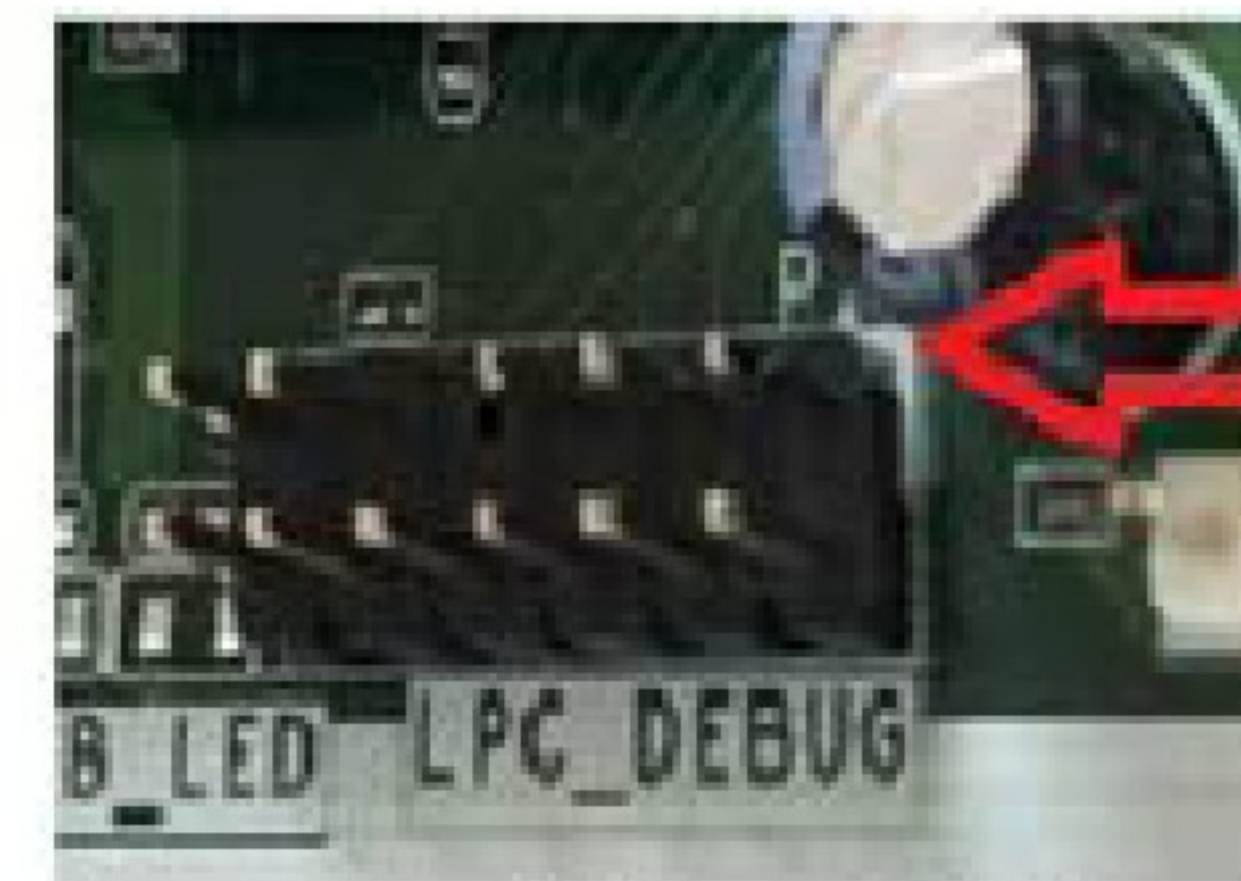


盈通、昂达、杰微、七彩虹、蓝宝石、铭瑄

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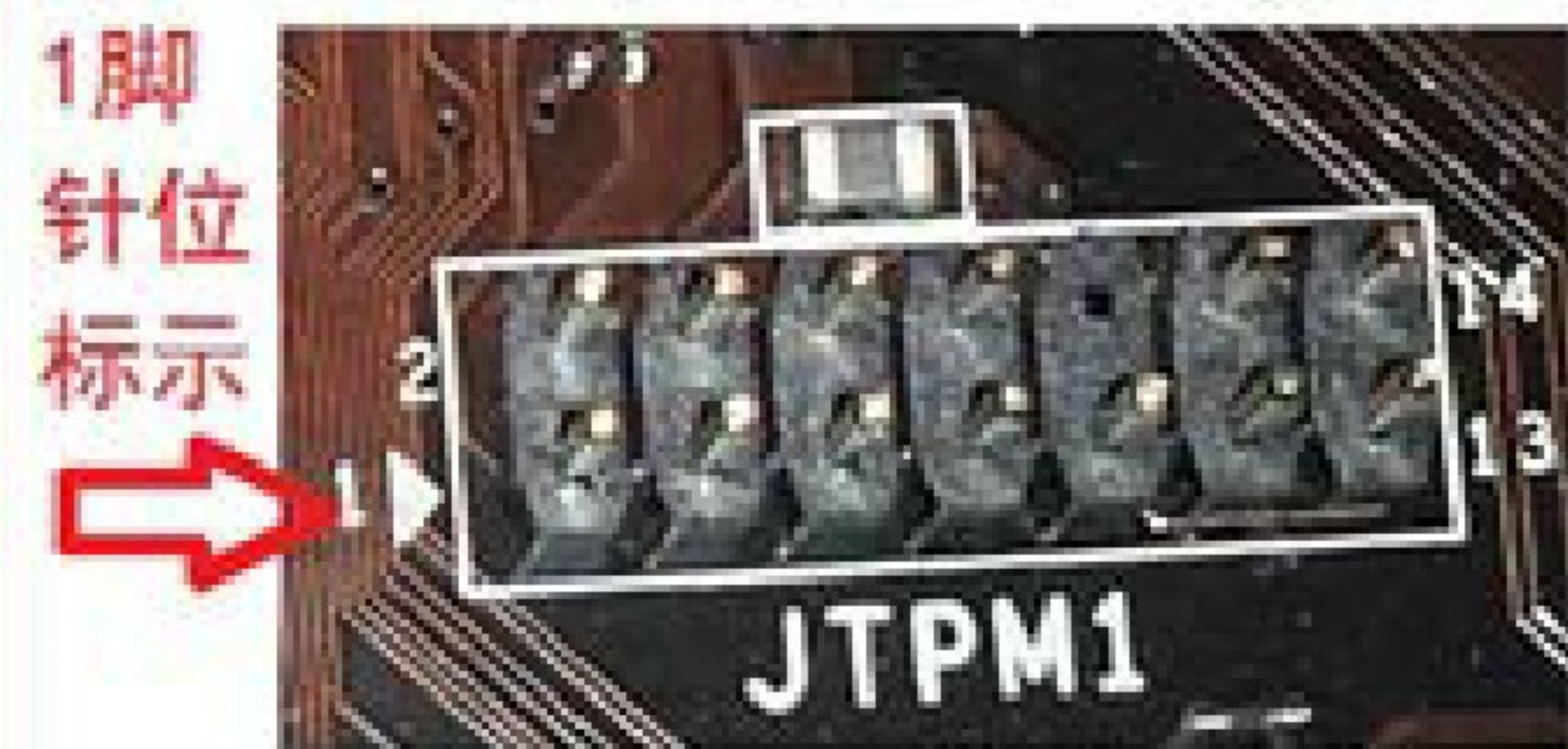
技嘉、华硕、精英、捷波、富士康、双敏、翔升



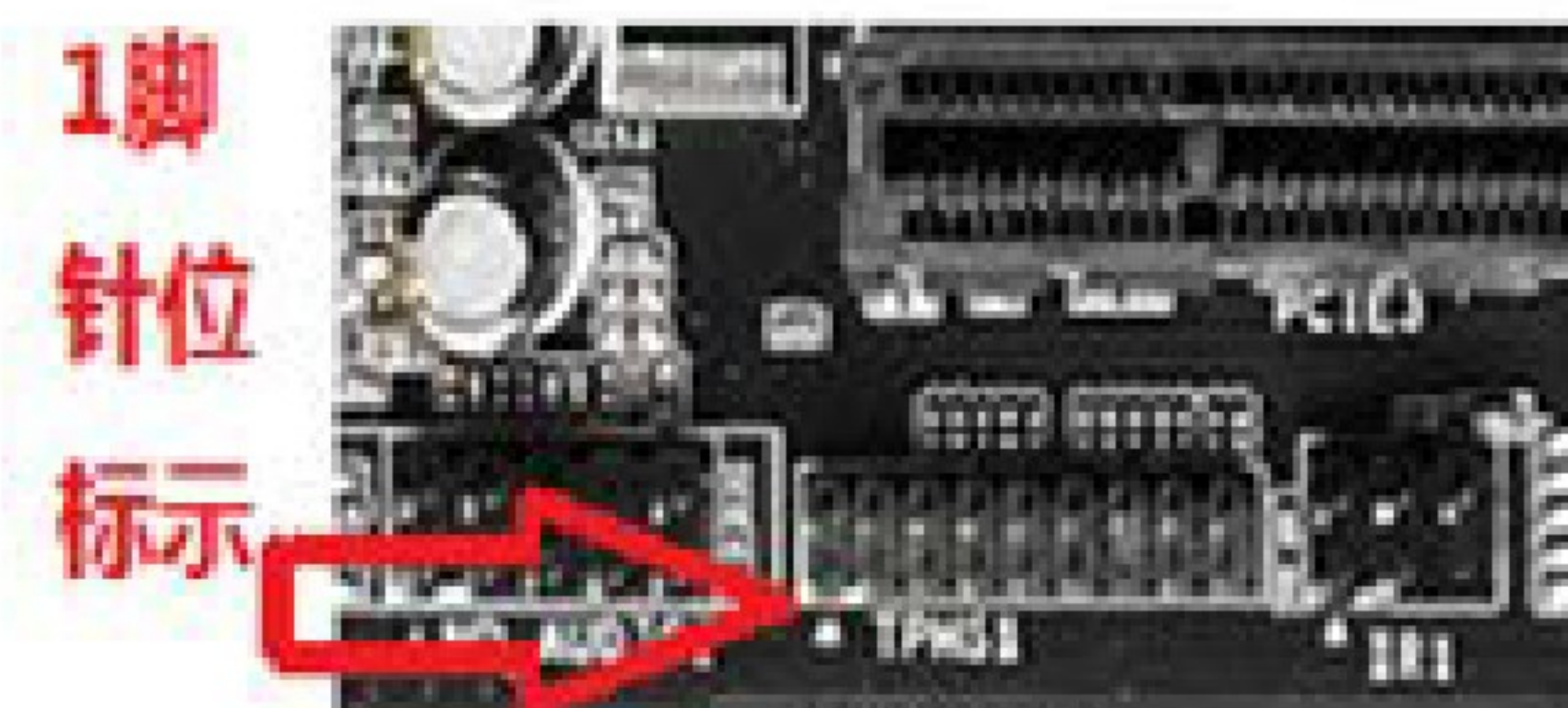
惠普、和硕



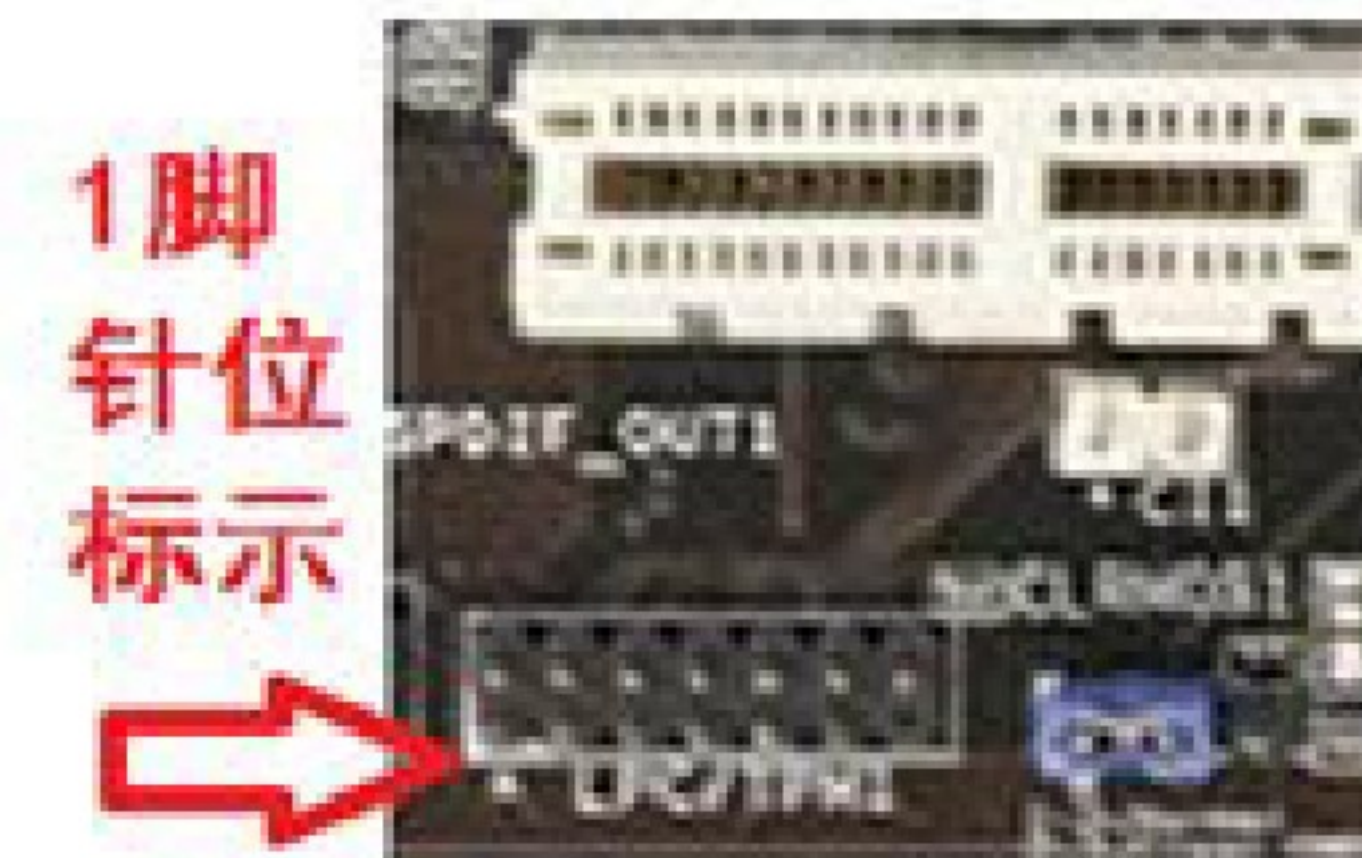
翔升



联想、msi微星、惠普



华擎(新)



华擎



华硕、技嘉、富士康、捷波、双敏