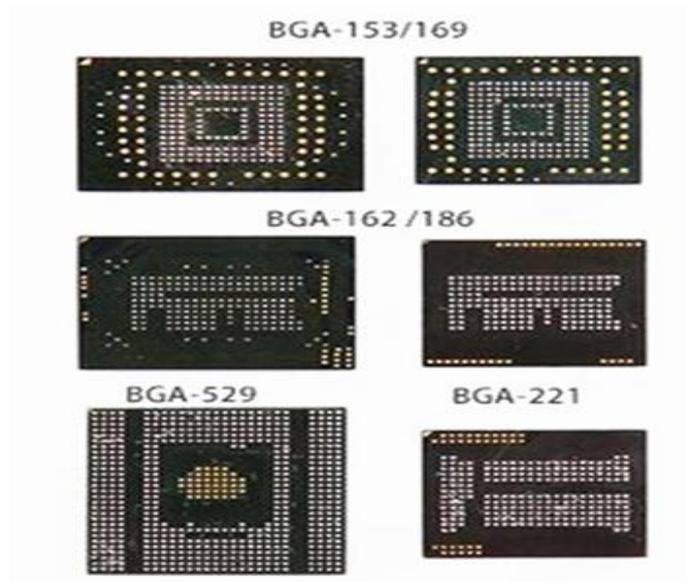# ALLSOCKET EMMC/EMCP-USB3.0 SOCKET for Android Mobile Chip-off Recovery

DS3000-USB3.0-eMMC/eMCP Socket Kit (4 Model -Black version)

The common 6 type eMMC/eMCP Memory from Andriod Mobile:

BGA153/169, BGA162/186, BGA221, BGA529

Please note that the socket/adapters may vary from color/adapter version as we upgrade product constantly.

What are emmc/emcp socket for?

*Extract CONTACTS/SMS/PHOTOS/VIDEO/CALL LOGS/APP Data from unencrypted eMMC/eMCP Memory Chip, which mobile is water damage,crack,broken or other physical damage(ensure the memory chip is still in good condition, although the motherboard may be dead/damaged). **DS3000-USB3.0-eMMC/eMCP Socket** fit for mobile chip-off recovery,emmc/emcp programming(read and write data), Mobile forensics.

*Compatible with Most Android Smart phones, such as Samsung, LG, SONY, Blackberry, Nokia, HUAWEI, MI, HTC, Motorola, Asus, Acer, Lenovo, ZTE, VIVO, OPPO, Hisense, Coolpad, K-Touch, TomTom ect. For more phone mobel and memory chip, please confirm with us(Email:amanda@allsocket.com)
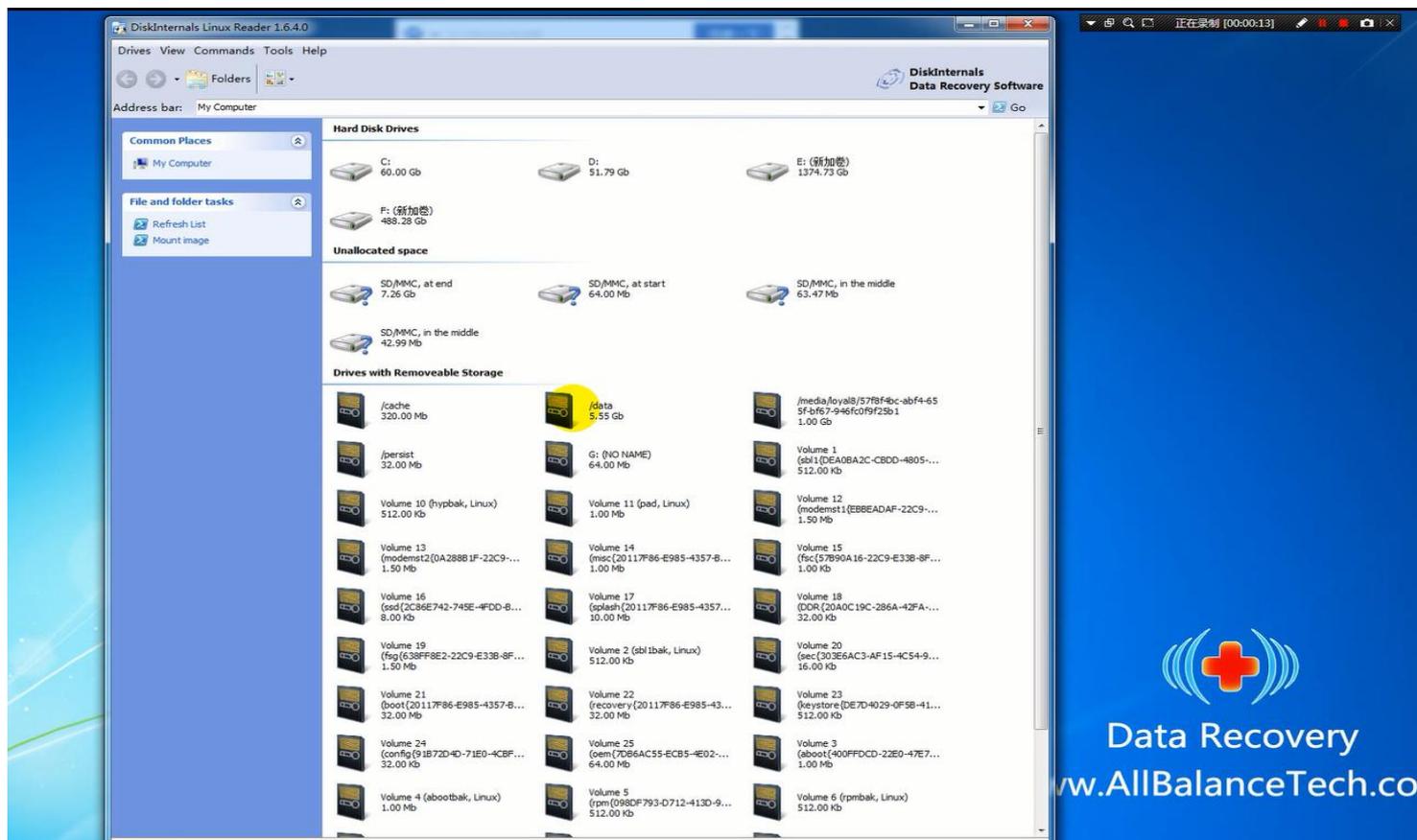
*__Demo software--*Linux Reader*__
Youtube link: https://www.youtube.com/watch?v=JHdLhZ72yGI
Demo Download link:
http://www.allsocket.com/Upload/share/eMMC-Chip-off-Recovery-Demo(Sample).rar

Screenshot of what data folder in the software you will see upon memory chip is connected to PC.
Generally,**"data" "User data"** folder is where the Contacts/SMS/PHOTOS/VIDEO are stored. There are cases that different data partition will show up in other mobiles.
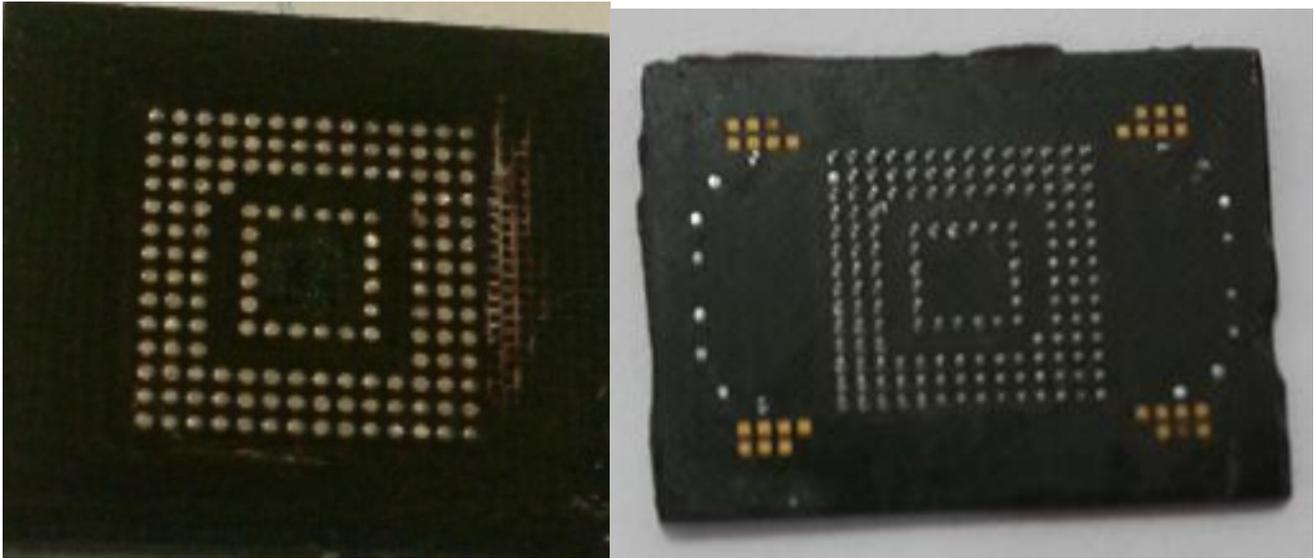
eMMC/eMCP-USB SOCKET Troubleshooting

1).Desolder chip and clean pads: please pay attention to desolder the chip from motherboard.
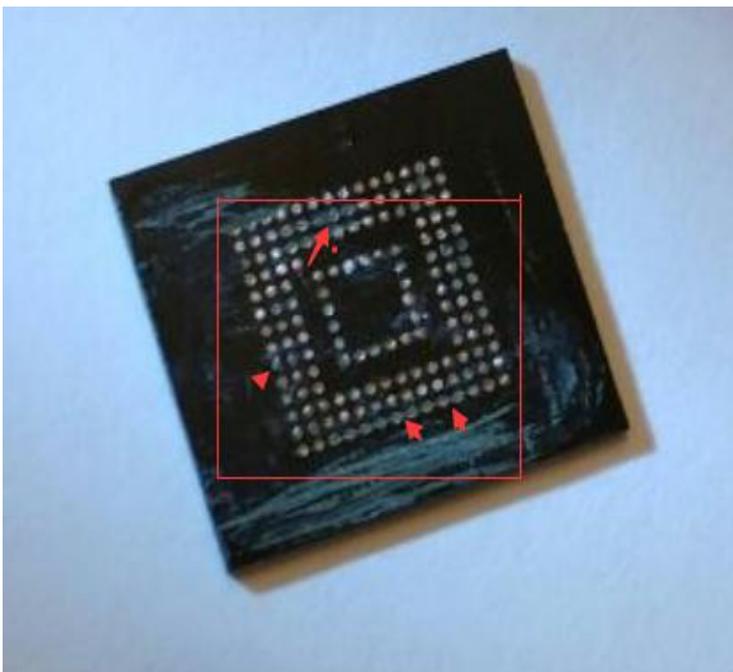
A. Generally, take the heat gun/hot air gun, set temperature at **350 Celsius, 1-2 minutes** will be okay(otherwise overheated will damage the chip).

B. Get rid off the glue above the pads, ensure most of the pads can be seen (as the following pic), otherwise the chip may not connect properly to the pins in the emmc/emcp socket. If the chip is in perfect condition after desolder, go ahead to place chip to socket and then plug to your PC/Notebook.

C. In some case, some pads are missing or removed accidentally, please have a try to clean the pads with Soldering Iron, soldering wick or solder paste if you have the reballing accessory tool.

e.g. this chip will need to do some clean or reballing work due to some pads are not completed.

Here is a Demo on how to clean pads with soldering iron and solder wick/wire in a easy way without reballing(you may go ahead to do reballing if you have solder paste and Reballing Stencils, or the BGA Reballing Station)

Download demo link:
http://www.allsocket.com/Upload/share/clean-chip-add-pads-by-Solderingiron-wick-Sample.zip

Accessary Reballing kit--
These following tools are some accessory you may need, such as ***Solder wick, Solder iron, Solder paste, solder flu, PCB cleaning water or Isopropyl 99% pure Alcohol.***
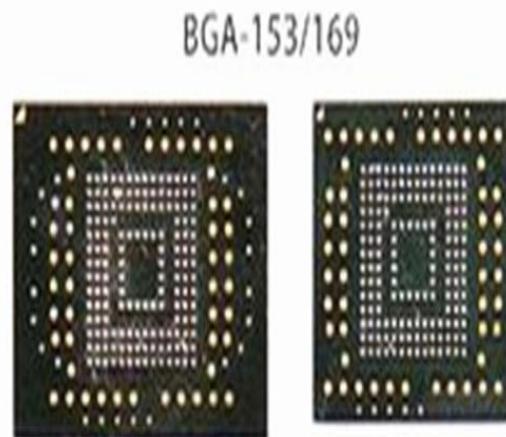
All Balance

ALLSOCKET

2). **Corresponding e*mmc/emcp socket model***: each socket is to read corresponding Memory chip/NAND Flash(e.g. eMMC BGA169/153 socket is only fit for the emmc169/153 chip). Verify your Memory Chip P/N and check the chip pads, and take correct socket model to read the chip. For more mobile and Chip Part-number, contact us or refer to: www.controlf.net/emmc

Part Number	Support Chips	Optional Sizes	Use method	Chip's bottom-Check and choose the right reader
DS3000-USB3.0-eMMC169+153	eMMC169/153	9x11, 11.5x13 11x10, 12x16 12x18, 14x18	Clamshell USB	eMMC169/153
DS3000-USB3.0-eMCP162+186	eMCP162/186	11.5x13 12x16 12x18 14x18	Clamshell USB	eMCP162/186
DS3000-USB3.0-eMCP221	eMCP221	11.5x13 12x16 12x18 14x18	Clamshell USB	eMCP221
DS3000-USB3.0-eMCP529	eMCP529	15x15	Clamshell USB	
DS3000-USB3.0-eMMC100	eMMC100	12x18 14x18		eMMC100 Allbalancetech

*__DS3000-USB3.0-eMMC153/169__ for FBGA153,BGA169,eMMC153/169 Memory, FBGA153,169 BALL NAND Flash.
Most of Android mobile, TV, CF card and GPS Device is with emmc153/169 chip (BGA153/169).

BGA-153/169

*DS3000-USB3.0-eMCP162/186 for FBGA162,BGA186, emcp162/186 Memory, FBAG162/186 NAND Flash.

BGA-162 /186

*DS3000-USB3.0-eMCP221 for BGA221,eMCP221 Memory/FBAG221 NAND Flash from mobile and TV and other e-device.

BGA-221

*DS3000-USB3.0-eMCP529,BGA529(eMCP529)is specifically for *Samsung Note 4 series, such as Samsung note4 n910, SM-N910F*, chip Part-number--KMR21000AM-A805,KMR210008M-A805

Galaxy Note4 use Multi-chip Memory chipset. There are two layers on BGA529 chip, the bottom part is what the Memory chip is.

3) **SIZE LIMITER/FRAMES**: There are about 6pcs optional SIZE LIMITER/FRAMES available for the socket. Exchange the corresponding size limiter before testing your IC(vary from IC dimension).
*6 sizes of limiter included : 9x11mm, 11x10mm, 11.5x13mm, 12x16mm, 12x18mm, 14x18mm
***Common size:** 11.5x13mm, 12x16mm; *emcp529—15x15mm*(Specific)
***Default Size limiter:** 11.5*13mm(comes within Sockets)

4)*The Pin 1 Indicator*: Before place chip into the socket, have a look at **Pin1 indicator** on the size limiter(*triangle) and memory chip(small dot).
The chip and Size limiter should be pointed to the PIN 1 indicator on the socket.
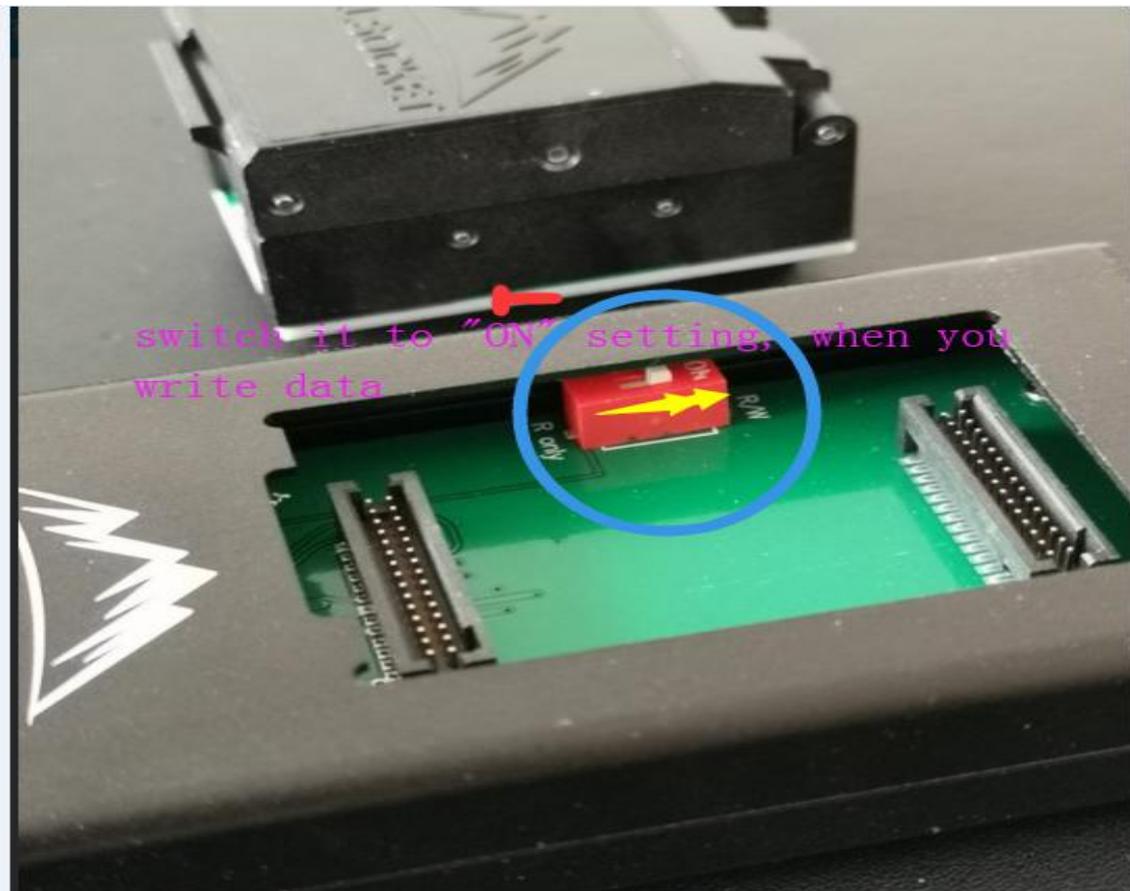
Pin1 indicator on the chip

Pin 1 indicator on the socket, generally, the pin1 on ALLSOCKET is at the upper right corner, where the triangle is.

5) **Switch Protection for Writing data**: There is a switch within the PCB Adapter, **DEFAULT SETTING at OFF(R ONLY, which is for data recovery function**. （No need to adjust the switch settings if you use it to recover data(read memory data）. **Switch it to ON option (Read/Write), ONLY in the case that you need to write data into the chip.   For Writing data,** please view the following for writing setting, and pull up the BGA Socket/adapter carefully(Noted: two rows of connect pins on the bottom of BGA Socket plug to the card slot on the PCB adapter, so try to pull the adapter upward slowly)

All Balance

ALLSOCKET

pull up the adapter

** Generally, Switch is DEFAULT setting at "OFF" position for Data Recovery. Switch it to "On" when you need use adapter to write data

switch it to "ON" setting, when you write data

R only   R/W

6) Connect socket to PC and run Data Recovery Software

Normal condition: Upon connecting the socket/reader to your PC or programmer with USB Cable, and there will be a notice pop-up on PC.

-- *"Do you want to format it?"*

--Click "Cancel", or just ignore it.

Please do not click "format disk" unless you want to program or take it as a new memory chip with factory setting, otherwise, all data will be deleted in this case.

B. **LED Indicator**: Press the Switch, all these lights (Data, VCC, Power)will be light up in sequence.

a). The LED at DATA is flashing at the beginning when start to read data, and then the light keep steady, the same goes with the VCC and POWER.

b). Abnormal: there will be some error when wrong chip, damaged IC, or Pin A1 is not in the correct direction, the VCC/Data light won't be on or keep flashing in this case. If you're unsure whether the problem is caused by the socket or memory chip, in this situation, please take out the chip, and try to test the socket without inserting any chip, then connecting to PC again, check if all these lights turn on properly or not.(Note: if all these LED are lighting, the socket is no problem, please use it in the proper way and turn socket off before taking out of memory chip).

c). ***USB3.0 port or USB Cable***: Please have a check at the USB Port in your PC or Notebook, the USB3.0 Socket need to plug into the USB3.0 port in order to ensure the fast read and writing performance. Though the USB2.0 Port is okay for the socket, the speed will be a little bit slow. Btw, plug one socket to your PC each time. Due to more than two sockets testing in the same PC,socket may not working properly, or lower reading. The USB3.0 cable is *male to male Type A-A Connectors.*

7) ***Operating system***: emmc/emcp socket can run on Window, Linux and Macbook, while some data recovery software may not work properly. Thus, for universal software, ***Windows7/8 is recommended***. If your computer belongs to the windows, together with the software, our socket can read the data in the chip; While Linux system does not need the software, it can directly identify the chip once connecting.

8)Chip-off Data Recovery Software:
Emmc/emcp Socket adapter support most kinds of universal data recovery software, such as R-Studio, Winhex, Superdatarecovery, 7-Data recovery, Linux Reader, Advanced_file_recovery, Stellar Phoenix, Access Data FTK Imager etc.

Here are links to download some Data Recovery Software from our website:

1) **Linux Reader software**:
  http://www.allsocket.com/upload/SaveDataFromAndroidphone.rar
(Linux Reader Simple Demo for reference)
http://www.allsocket.com/Upload/share/eMMC-Chip-off-Recovery-Demo(Sample).rar

2) **DB.Browser to covert DB.file** (to extractor Contacts/SMS DB format)
http://www.allsocket.com/Upload/share/DBBrowser-for-SQLite-3.9.1-win32.rar

3) **R-studio recovery software** (Recommend, fit for data recovery and making image)
http://www.allsocket.com/Upload/share/R-Studio_v8.2_Build_165337.zip

4) **Advanced_file_recovery**--
http://www.allsocket.com/Upload/share/advanced_file_recovery.rar

5)**AccessData FTK Imager 3.4.0.1** （Creat Image,For Decrypt key）
http://www.allsocket.com//Upload/share/AccessData-FTKImager-3.4.0.1.rar

6) Winhex(for Disk Image/Recovery)
http://www.allsocket.com//Upload/share/Winhex-14.9-Full.zip

For more operation demo, please view it from our Youtube or website:
a. *USB eMMC Socket*: https://www.youtube.com/watch?v=GsNoN9yksaM

b. *Linux Reader software:*
https://www.youtube.com/watch?v=JHdLhZ72yGI

Visit: www.allsocket.com for more product info:

Socket & adapters: emmc/emcp,BGA,QFN,QFP,TSOP,SOP,SOT
Tester: SSD Flash DDR (customized service)
Test Jig/Socket/Fixture custom for: CPU Bridge LPDDR DDR Flash FPC etc.
emmc/emcp Mobile Chip-off Data Recovery: emmc153/169, emcp162/186, emcp221, emcp529, USB/SD version Socket

Customized Adapter: Offer customize service for most BGA QFN QFP PACKAGES Sockets and Adapters, as well as CPU GPU LPDDR DDR SSD Flash Testing Jig. Provide us IC specification, datasheet or detail customized requirement if you need help.

Any other questions, please contact us:
Email: sales@allsocket.com