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IT8212 FAQ V1.1

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1. Could I use IT8212 for CD-ROM?
Ans: IT8212 supports either RAID controller (which supports hard drives only) or pure IDE controller (which supports hard drives and CDROM) with different BIOS code. Please update your BIOS ROM with ATAPI BIOS.

2. How should I update BIOS?
Ans: First of all, please make sure the ROM on your RAID card is programmable (ITE flash utility supports SST、ATMEL and PMC-flash … EEPROM). If it is programmable, please download new BIOS and the update utility at http://www.ite.com.tw/productInfo/Download.html.
The update procedures are as follows:
a. Use BIOS update utility in pure DOS mode
b. Execute "iteflash"
c. Execute "INT13.bin" when the prompt shows "PLEASE INPUT NAME TO PROGRAM:"
d. BIOS update utility backups old BIOS to BACKUP.bin
e. BIOS update utility will program new BIOS to IT8212 ROM after backuping old BIOS.
f. Restart the system.

3. If the ROM on the **IT8212 card can't be programmed again, what should I do?**
Ans: ITE is not a card maker but an IC maker and the card maker should be responsible for supporting you on this card. Therefore, I suggest you should contact with the card maker or retailer for further technical support.

4. During RAID 0 with 2HDD array, I find the data transfer rate depends on the lower one. Does it mean two IDE channels are not independent?
Ans: Since IT8212 includes an embedded CPU and firmware to execute the RAID function, the activities of accessing hard drive are achieved by H/W instead of S/W. Thus, the performance on RAID 0 will be limited by the hard drive speed.
In RAID 0, two HDDs make the stripe process and the embedded processor will wait for a lower speed HDD to finish the access even though a high speed HDD had finished the access earlier.
Compared the performance of IT 8212 card to the performance of other RAID cards implemented by S/W, other RAID cards result in heavy loading of CPU utilization and IT8212 uses less CPU utilization and occupies less system resource.
Besides, if you want to get a better transfer rate, you can try to adjust the parameter of block size in RAID function. Maybe you will see a better result in you test.

5. **I have some problems with the driver under Gentoo Linux**.
Ans: The Linux kernel IT8212 supports are RedHat9.0 and Mandrake 9.0. Please download the Linux driver source code at http://www.ite.com.tw/productInfo/Download.html and compile it with your own kernel to get support on it.

6. How can I get Linux driver source code?
Ans: You can download the source code at http://www.ite.com.tw/productInfo/Download.html after signing the NDA.

7. How many sizes of hard driver IT8212 can support?
Ans: IT8212 supports up to ATA/ATAPI-6 compatible and it supports 48-bit LBA. From the viewpoint of hardware, the capacity of hard drive it can support is 2^{57} bytes. However, the actual operation depends on BIOS and driver support. The current IT8212 Windows driver just supports 32-bit LBA, so it is around 2000 GB.

8. I have flashed the BIOS and the system says everything is OK, but it shows v1.2 02093030 after rebooting. I wonder if it is the old version?

Ans: Yes, this version is old. Please update it and download new RAID BIOS from the following web site address: http://www.ite.com.tw/productInfo/Download.html.

9. How can I update the 8212 BIOS on GigaByte motherboard?

Ans: ITE's BIOS update utility is for IT8212 PCI card only. In your case, IT8212's BIOS has already been integrated in

Gigabyte motherboard's BIOS. Please ask Gigabyte for help .

10. How can I see my attach Hard disk of IT8212 RAID card?

Ans: You have to use system manager to re-locate these HDD into system configuration.
     The operation steps are as follows:
"Setting " → " Control panel " → " System manager tools " → " Computer manager "
     → " Disk manager " to re-locate the new hard disk

11. Why can't my HDD operate in best transfer mode of IT8212 card?

Ans: IT8212 BIOS can detect HDD's best transfer mode but if connect cable is wrong, this condition can't be best used.
     First, check your cable is 40 or 80 pins cable. If you want to operate in a high transfer mode, please use 80 pin cable.
     In RAID 0, you might have better performance by change the stripe size setting (64K/32K/16K …).
         Besides, we also found that IT8212's performance on Intel chipsets is much better than some other chipsets.
     We suspect that it is caused by the difference of architecture of chipsets.

12. Can RAID performance be fixed by a firmware upgrade?

Ans:IT8212 includes an embedded CPU and firmware to execute RAID function, so the advantage is that less CPU utilization is occupied and the shortcoming is RAID 0 performance. I suggest that you can try 32K as stripe size but to be honest, I must confess that R0 performance is not as good as you wish.
     The firmware is embedded in IC and there is no interface to program it, so I am afraid that there is no room to improve it by s/w upgrade for us.

13. Why do I get poor performance with Via and nVidia platform?

Ans: IT8212 RAID 0 performance on Intel chipsets is much better than some other chipsets and we suspect it is caused by the difference of chipsets' H/W architecture.

14. How could I set hard drive as in normal mode instead of RAID?

Ans: Please do not set any RAID function in BIOS.
     If you have chosen RAID0 in Menu[1]Auto configuration, you should delete RAID in Menu[3], save the setting, and reboot, then the system will be in a normal mode.
     You can check user Manual to get the detailed setting procedure for deleting RAID.