

3'ed

So Steve Jobs has finally announced the most anticipated Macs since the IMac. I am of course referring to the new G3 mini towers revealed by Steve at the MacWorld Expo in San Francisco on Monday. So imagine my surprise when on Wednesday afternoon I had a shiny new 400MHz G3 on my desk.

What did I do first? Switch it on? No of course not, I'm an engineer for goodness sake. I took it apart and I thought I'd let you know what I discovered before you all rush out and buy one. The new G3 is an odd looking thing and has received varying responses from being described by one person as Mac Tupperware to being drop dead gorgeous. The general rule of thumb is that if you're a designer you love it if not you hate it. My opinion for what its worth is that I don't like the look of it I think it looks to cheap like Vtechs my first computer. I was hoping that the colour would be more like the old Apple Studio display dark blue, I thought that would give it a more serious mean look that say don't mess with me. But I'm sure in time it will grow on me.

Anyway enough of the aesthetics what about the insides. Well there are four new Macs and they are:

300MHz, 512K backside cache, 100MHz system bus, 64MB SDRAM, 6GB Ultra ATA drive

24x CD-ROM drive, ATI RAGE 128 graphics, 16MB graphics memory

350MHz PowerPC G3, 1MB backside cache, 5x/32x DVD-ROM drive

350MHz PowerPC G3, 128MB SDRAM, 12GB Ultra ATA drive, 24x CD-ROM, Zip drive

00MHz PowerPC G3, 1MB backside cache, 128MB SDRAM, 9GB Ultra2 SCSI drive (with external BUS), 24x CD-ROM drive, ATI RAGE 128 graphics

The first thing you will notice is how easy it is to open up and perform upgrades. The side panel swings open to reveal the logic board which is attached to the side panel and easy access is provided to the five drive bays three of which are located on a chassis on the bottom of the machine and two bays at the front for internal Zips etc. The 300 and the two 350 models come with Ultra ATA drive of ample sizes of 6 and 12GB and 9GB ultra wide SCSI on the 400MHz. The G3 processor is located on a ZIF socket as it was in the old G3s so installing a new faster processor in the future shouldn't be a problem, and yes the jumpers to modify the speed of the processor are still there. Although be warned that these are covered by a label and if this label is removed you will invalidate your warranty. RAM expansion is provided via four PC100 SDRAM sockets giving you a maximum RAM capacity of 1GB. There are four PCI slots, three standard 33MHz slots and one super fast 66MHz slot. However the fourth slot is a non-standard size and houses the ATI video card. VRAM is soldered onto the card so you can't expand it but then it does come with 16MB so who would need to. It will drive monitors in resolutions upto 1900 x 1200 in millions of colours. The ATI card comes with a piggyback connector so in future you will be able to connect an MPEG card decoder for watching DVD movies.

Now onto the external ports. The new Macs supply you with two USB ports, two firewire ports, ADB, 10/100 Ethernet (no need for a PCI card), audio in/out, and the video cards DB15 HD (VGA) but Apple do provide an adaptor for Mac monitors that use the old type connector. Now as you will notice there is no SCSI or serial ports on the new machines. However SCSI is provided on the 450MHz model via the ultra wide card although if you have existing SCSI devices you will either have to buy an adaptor or a new cable, as the ultra wide interface is different from that found on all other Macs. If you do need SCSI then you will have to buy a third party SCSI card from the likes of Adaptec etc. expect to pay about £75.

If you want to use any serial devices you will have to purchase a USB – Serial adaptor from Keyspan. This gives you two serial ports but be warned you can't use this for connecting local talk printers if you want to do that you will need an lprint box from Farallon. Apple has decided to replace the now ageing SCSI standard with firewire and for some good reasons to. Firewire comes in three levels there is the 100Mbps,

400Mbps and 1Gbps that's 10,40, 100 megabytes per second. The G3s come with 400Mbps version. Firewire doesn't need termination or lds like SCSI and you can hook up 68 different devices to one port! Its hot swappable to so you can plug a device in without having to shut down your Mac, the Mac will then mount the device. The final great thing about firewire is that the devices don't require an external power source they take their power from the firewire port so expect to see firewire as a standard port on any new PowerBook's. And one last thing I don't imagine it will be long before someone provides a Firewire – SCSI adaptor. One thing about the new monitors, apparently you need USB for them to work correctly so they wont run on older Macs I don't know if you can get round this by installing a USB card in an older Mac.

Technically these Macs are fantastic yes there are going to be teething problems as we all move over to firewire and USB but in a few years time we will all wonder what all the fuss was about. I do have one question though as Quark's installer comes on a floppy disk how are we going to install it onto the new Macs, oh did I forget to mention that they don't come with a floppy drive?

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ince I wrote this article a number of issues have arisen regarding SCSI. The 400MHZ version ships with an Ultra II fast and wide (SCSI 5) SCSI card. Apple originally reported that the cards had a SCSI II connector on them. However several users have reported that this is not the case so you would have a problem connecting any internal SCSI devices that were not Ultra II SCSI. Apple are currently looking into it as we speak. Another problem is that the card has an external 68 pin connector which is the same port that SCSI III uses but the Mac becomes very unstable when you connect any devices to it using a traditional SCSI III cable. The long and short of it is that nobody including suppliers seem to know exactly what connectors the card has and what cables are required. Hopefully this will all be resolved shortly.