

WHAT

MP3

Internet music magazine

EXCLUSIVE



WRIST WATCH PLAYER

First test of Panasonic's amazing MP3 watch!

FREE CD!

50-TRACK MUSIC DISC FOR ALL PC USERS
NO CD? SEE YOUR NEWSAGENT



BURNING AMBITION

Grabbing hot tunes from the Net

TOMORROW'S WORLD

We reveal the high-tech future of music online

PLAY AWAY

12 of the sexiest MP3 players tested



TUNE IN, ROCK OUT

Now you can get MP3 on your mobile!



WEB GUIDE: 66 OF THE BEST MP3 SITES

Eastern Promise

Want to know what lies in store for MP3? Bob Tomalski gazes into the crystal ball with MiCO Electric, one of the latest companies set to export MP3 players to Britain

You may be surprised to learn that most MP3 players continue to come from small companies based in Korea, Taiwan or China rather than the electronics giants of Japan and the USA. If you trace the history of internet music, it's easy to understand why. Initially, MP3 was seen as a threat; it was a culture that condoned copying. Companies such as Sony, Panasonic and JVC all have extensive ties with the record industry and spurned all links to a technology that promoted music for free.

Now it's different – or at least that's what we're told. With SDMI (Secure Digital Music Initiative), you can legitimately download music by paying a fee. Suddenly, the brands that previously snubbed MP3 are ready to churn out players in their millions.

So what of the originators of the hardware? Are they about to go belly-up? Are we to see low-cost MP3 players disappear as Sony's Memory Stick and Panasonic's SD Card make their mark in the mass market?

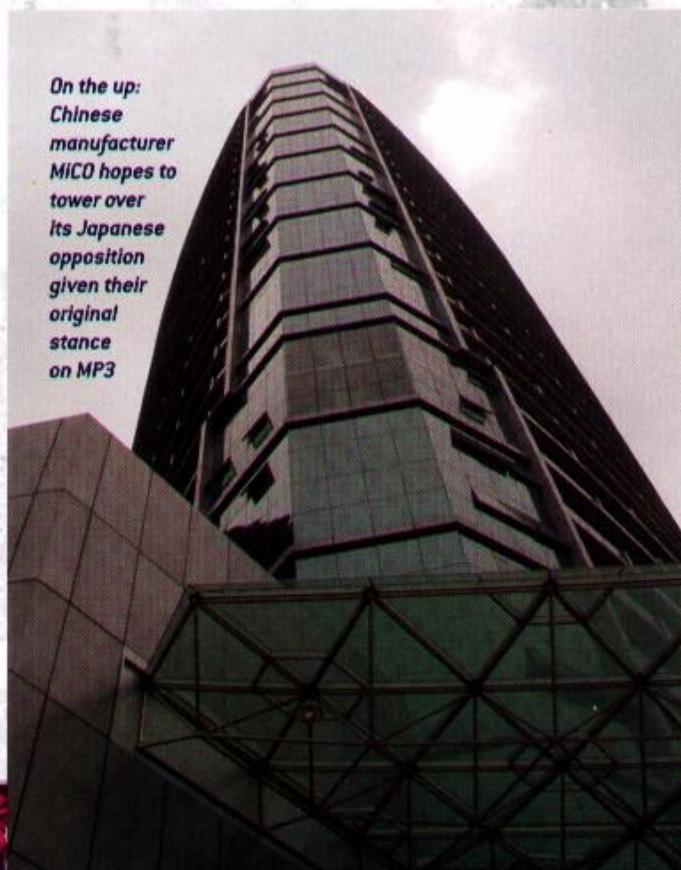
Of course not. And I can tell you that with some authority. Recently, I visited China and met a company which is set to seal deals with distributors all over the world. It sees the market firmly fixed with MP3 and believes that SDMI will make little or no impact.

Meeting MiCO

MiCO Electric is a brand virtually unknown in Britain. If you own a DVD player, you might be aware they are among a new breed which play all-region and CD-R/CD-RW media, but that's about all. Yet they are soon to become one of China's biggest shippers of MP3 players.

With R&D facilities in Shenzhen and Zhongshan and manufacturing in DongGuan, MiCO is one of many OEM's to make low-cost MP3 players for sale in our high streets.

On the up: Chinese manufacturer MiCO hopes to tower over its Japanese opposition given their original stance on MP3



So what's an OEM? The term stands for 'original equipment manufacturer'. In Britain, you may know products by names such as Alba or Goodmans. Yet in fact, these brands' products are made on their behalf by an OEM company which remains anonymous.

Exactly what is made (and for whom) and how much it costs is kept a trade secret. Most OEM companies stay low-profile and won't reveal what they are currently producing, let alone what they are developing for the future. Until now that is, as the doors were thrown open to us in China.

That's right – What MP3 has received an EXCLUSIVE briefing from MiCO about how it sees the future of the MP3 market and the results of its latest research into this new technology. We were shown its R&D department and given an insight into what we might expect in future.

As you can read, MP3 is not about to die overnight in an onslaught from Japanese multinationals. At least, not if MiCO can help it...

Massive growth industry

In MiCO's R&D facility in Shenzhen on the Pearl River Delta, I met with Joe Chen, the company's Regional Manager. He was happy to tell me of Mico's plans to develop a whole range of innovative MP3 products. They include versions of MP3 players which offer encoding without using a PC and even a music centre which has MP3 replay. According to Chen, the MP3 market will enjoy massive growth, with virtually every consumer electronics manufacturer launching their own concepts of portable music playback.

What MP3: So how is MP3 set to change and how will MiCO meet the challenge of new technology? What features will you offer on the next generation of portable MP3 players?

MICO: Our first model, launched last year, was basic. It had no memory card, just internal memory and a parallel port interface. Our second generation model will have a memory card, voice recording and an internal radio with remote control.

As soon as we make a design with a memory card there's a problem. Which card to use? MMC or CF or SmartMedia? This affects our future plans, for example the tooling and circuit. The other issue is the change from parallel to USB ports.

Initially, our component suppliers told us it was too early to move to USB, but now it's standard in the MP3 market. The market is moving quicker than ever, so we have to react quickly.

We need to do a lot of R&D by ourselves and not rely upon third parties for things like USB driver circuits. By the end of this year, any manufac-

turer will be able to make MP3 without much effort because of the ready availability of chipsets. To compete, we need to develop something new.

How will MP3 change? I foresee two trends. Some manufacturers will adopt the idea of multi-format playback. The player will be flash-upgradable for MP3 or ATRAC or AAC and many other compression standards. The other trend is to add an encoder, so there's no need to connect to a PC.

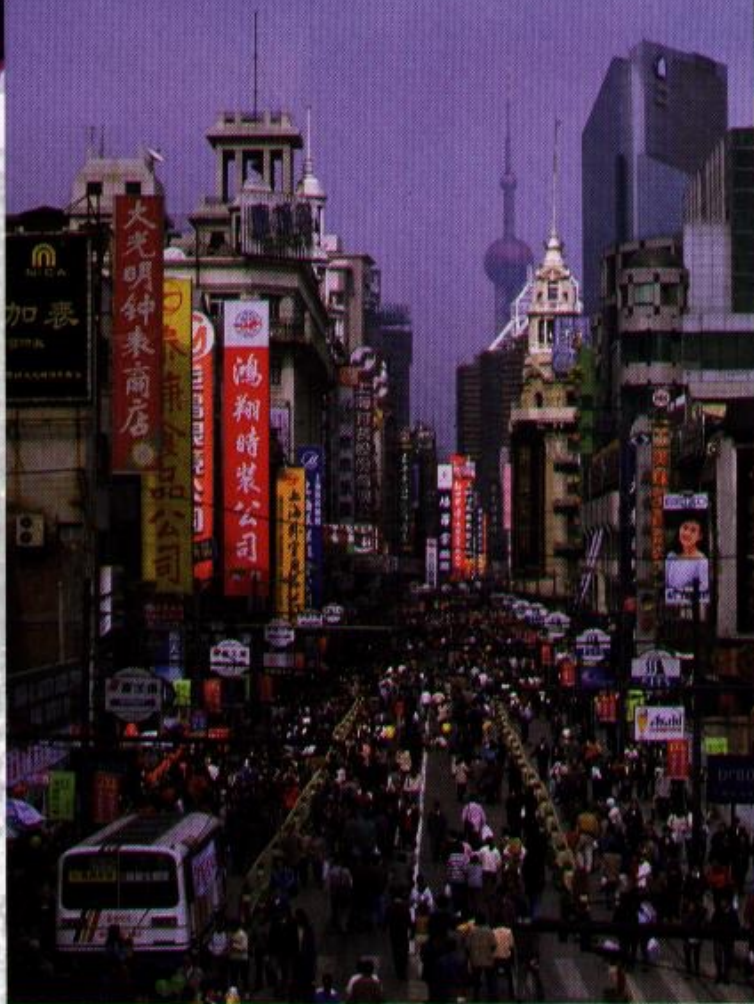
At MiCO we believe on-board encoding is the most suitable route for our development. This is better than going the multi-format route immediately because no-one knows which encoding system will be king. We can build in flash RAM if we need, but that's not a priority. I think the consumer will concentrate on MP3, simply because there is so much music around.

What MP3: You've touched on the format war which has already started between different types of memory card. Which one will MiCO adopt and why?

MICO: I think the CF CompactFlash card. We already have customers with this card and it

Massive growth: China will be as much a part of the MP3 success story as Japan or the USA

"By the end of this year, any manufacturer will be able to make MP3 without much effort"



MP3 Goes To China



MP3 FOR THE FUTURE

MiCO has shown What MP3 a conceptual prototype 'Third Generation' player. It will feature a touch screen with electronic memo, high-speed (12Mbps) USB interface, FM radio with auto tuning, 2-hours voice recording plus high-quality music encoding and a time/date/alarm.

Future versions will see the ability to perform an audio-format upgrade via the internet and even a chipset version to allow OEM customers to develop music centres which have MP3 encoding and decoding.

"Frankly I don't see people adopting SDMI overnight"

allows a small player to be built. Also PC users are often likely to have a digital camera and be comfortable with CF because so many brands of camera use it.

However, we must be flexible to adopt other formats if they prove popular. We don't know how the public will react to SDMI which, of course, uses a card that has copyright protection - like Sony's Memory Gate and the SD which is being proposed by a group of Japanese companies.

What MP3: Which brings us neatly to the issue of SDMI. Do you think the public will take to it? Or is this idea of music networking a myth?

MICO: According to the OEM buyers who purchase from us, it will be a slow growth. Frankly I don't see people adopting SDMI overnight. It all depends upon the content becoming available. Is there much content on the web?

I think many people might see SDMI as being a version of regional coding as seen on DVD, where the content is (too?) tightly controlled. Beyond this, I can make no other comment. Time will tell if SDMI is accepted. If it is, then we'll make SDMI-applicable players, but only when we see a market for them. Right now, that market is not there.

What MP3: So what of the future? If SDMI doesn't become big, what will? Where's all the action going to be?

MICO: In the future, we think an encoding player/recorder will be the big breakthrough which establishes MP3 as being a mass market device to compete with portable MD or portable CD.

Right now, MP3 is okay for consumers who are comfortable with computers, but there are many who are not. Many are frightened of PCs. They want MP3 but without the trouble of using such technology.

I predict all this will come about by the end of this year. I hope we can launch a product very soon after the MP3 encoder chips appear.

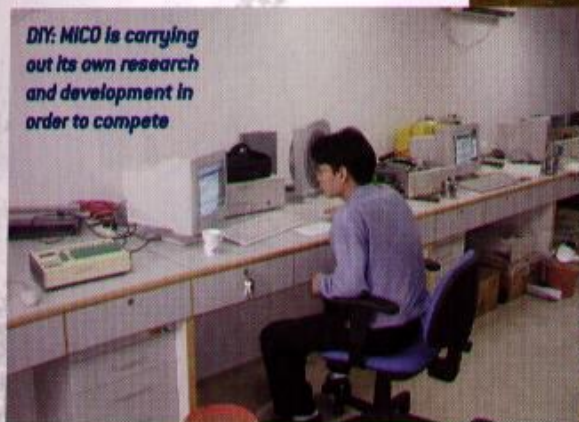
Also, I predict there will be a new type of 'low-cost' MP3 player coming to market. These will use a memory card, but be shipped without memory. Such devices could be given away for free, to promote an internet service provider or even to promote a music company or particular band. We have had some interest from the US to develop this.

What MP3: And what about the quality of reproduction delivered by MP3 players? Will it improve and ultimately compete with CD?

MICO: For MP3 there's a fixed compression ratio of around 12:1 but I can foresee a range of options. So you'll have voice recording and music recording. It's something we are studying to see what features we can offer. As for CD quality, well that depends on your perception of sound. As other manufacturers improve upon their encoding and develop other standards such as AAC and ATRAC, so, too, the performance of MP3 will improve.

I can foresee a time when the mass market accepts MP3 for portable playback but, of course,

DIY: MICO is carrying out its own research and development in order to compete



there will always be a market for CD among the music purists.

What MP3: Now can we turn to style. Many makers are seeing MP3 as being more than just a gadget to play music. Some see it as a fashion accessory. What's your view?

MICO: Yes there's a style issue. Right now, most MP3 players are rectangular, but there's no reason for them to be like this. We foresee some interest in MP3 being offered almost as a fashion accessory, so we shall develop an oval shape in many colours which you can wear as a brooch or attach to your arm or leg on a flexible band. Another idea is to offer add-on accessories, such as different coloured fascias, as on mobile phones. We have to come up with a good design, maybe to match with a PC notebook as a device which plugs into the PC-card slot. I think that could be an attractive device for the future.

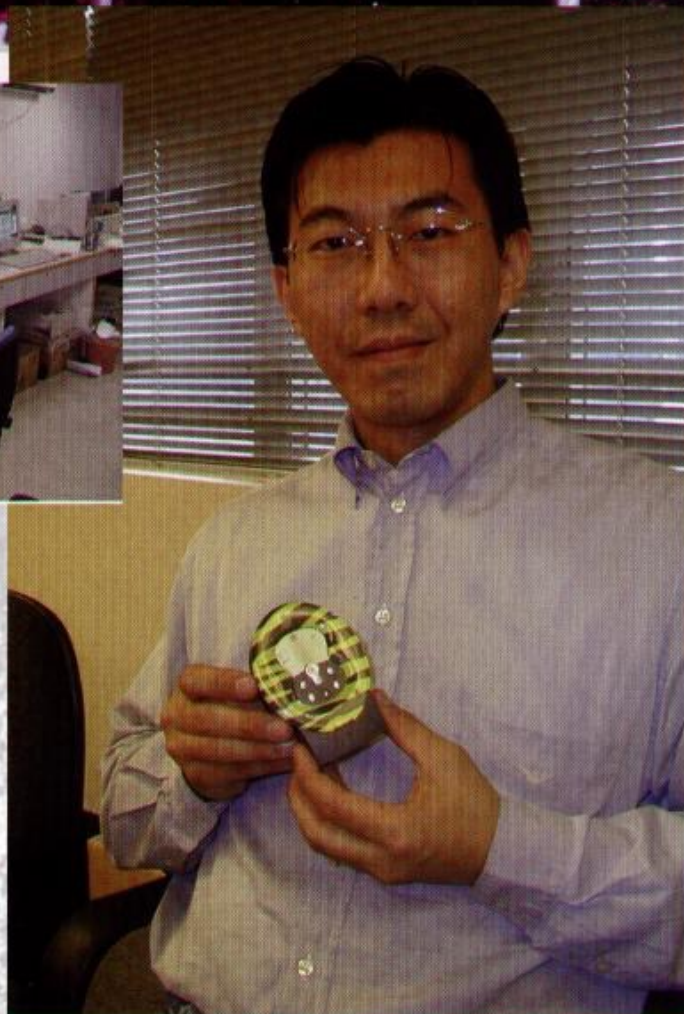
What MP3: Finally, can I ask about pricing. We've seen costs reduce as the price of memory plummeted. In your view, will this trend continue?

MICO: We think you'll be seeing MP3 players with radio and other features offering 32MB RAM for under £100 very soon. The memory price is on a downward spiral, so it looks good for consumers. Today, it's expensive to offer MP3 encoding, but this, too, will get cheaper.

In time, an encoding machine will cost the same price as today's players – and at that point, it could mean the death of other portable recorders such as MD.

That's where we are moving in future. Of course, all this won't happen tomorrow, but certainly within a year or two.

Just ask yourself this – why haven't large Japanese companies adopted MP3 until now?



Simple – because they see a threat to their traditional markets for portable music playback. Only now are Sony and Panasonic coming out with solid-state players using SDMI.

In the future, the MP3 market will grow and grow. The challenge is to succeed; to grow with that market and not be left behind. ●

The colour of money: MICO regional manager Joe Chen agrees there is a style issue in MP3 which his company is addressing

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