

Retro Family Tree

✧ If the Queen gave out sampling awards, Akai would surely make the Christmas honours list with its ongoing, successful S series samplers. Jonathan Miller racks and rolls with it. . .

FUTURE MUSIC IS about making music at the cutting edge of technology. Yet however you want to define cutting edge, there's no denying the importance of the sampler in today's technology-intensive music genres; competitors in the ever-widening fields of dance always have a stash of samples at their disposal. Whether you subscribe to the (extreme) viewpoint that sampling has overstepped the borderline from being helpful to becoming the crutch of helpless musical amateurs, or you see it as an indispensable creative tool, is neither here nor there. Sampling – hardware- or software-based – is here to stay. Period.

For nigh on two decades sampling has effectively constituted music technology's cutting edge, and Akai has arguably done more than most to bring this occasionally divisive technology to the masses. For many, the company name is inextricably linked to the ubiquitous S-prefixed beige sampling boxes. Akai continues to form the backbone of many recording and performing set-ups, whether it be 1986's inaugural industry-standard effort, the eight-voice, 12-bit, 750K S900, or the awesome 128-voice, 18-bit, 256Mb S6000 flagship, launched in 1998. Times change – as do specifications and the all-important bang-for-the-buck factor – but not that distinctive colour. However, it wasn't always so...

Englishman in New York
Akai's not-so-illustrious sampling debut, the six-voice, 12-bit, 2U rackmountable S612 MIDI digital sampler, arrived in 1985. Never heard of it? I'll forgive you. Dave Cockerell (a Brit arguably most well known as chief designer of the infamous late-60s EMS VCS3 monosynth) began working on what was to become the S612 during his New York tenure with Electro-Harmonix (manufacturers of the equally infamous Big Muff Pi distortion pedal). Following the latter's demise in 1984 Akai's Electronic Musical Instrument (EMI) division acquired the rights to Cockerell's one-shot sampling design, relaunching it as the S612 (Akai also retained Cockerell in an R&D capacity).

Although about 12,000 of these low-cost (£799) mono machines were sold, they're unlikely to see much use today; the S612 has no onboard sound storage,

unless attached to its dedicated companion, the 2U rackmountable MD280.

Viewed from a 21st-century perspective, its downside is threefold. First, it uses 2.8-inch Quick Disks (virtually unobtainable nowadays). Second, only one sample (eight seconds at 4kHz or one second at 32kHz) can be saved to each side of a Quick Disk. And third, it's not beige!

The price is right

The S612 faced stiff competition across the pond from Ensoniq's groundbreaking, eight-bit, eight-voice Mirage with its handy five-octave, velocity-sensitive keyboard, onboard polyphonic sequencer and standard 3.5-inch disk drive. The \$1,695 Mirage substantially outsold its rival, stealing much of Akai's sampling glory. Clearly, Akai needed to think again. And it did, bigger and better with the

(with the V2.0 software update). Sampling had come of age... or had it?

Formula 3000

The sampling race was on, but three years passed before Akai's next generation, the 32-voice, 16-bit, 16Mb S2800 and the 32-voice, 16-bit, 32Mb S3000. The advantages of the 2U S2800 and the 3000 over the S950 are obvious, though they were extremely similar; the S2800 was simply a cutdown S3000 with only two outputs, no XLR connectors and no SMPTE option (so no cue list).

The upmarket S3000 was effectively an S1100 replacement with optional SCSI card, digital I/O card and 105Mb internal hard disk. Not much change then, though it's worth mentioning both stereo machines offer onboard effects, resonant filtering (enabling synth-like textures)

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well endowed (by 1986 standards) 3U rackmountable S900.

Chocolate brown was out and beige found favour. But cost-effective stereo sampling was on the horizon as Akai rolled into 1988 with two new 3U machines, the eight-voice, 12-bit, 2.25Mb mono S950 and the 16-voice, 16-bit, 32Mb, stereo S1000. At £1,349, the former could be considered a cheaper S900 replacement of sorts, albeit with a higher maximum (48kHz) sample rate and a few other bells and whistles like timestretch and crossfade, plus SCSI and digital in options. Although the S950 again sold well, the S1000 stole the show, subsequently becoming available in various guises, including the S1000HD (with built-in 40Mb hard disk), the S1000PB playback-only unit and the unwieldy S1000KB keyboard derivative.

Come 1990, Akai took the sampling game further with the introduction of the expansion- and option-friendly, 16-voice, 16-bit, 32Mb S1100, replete with 24-bit internal processing, an onboard SCSI interface and digital effects board, AES/EBU digital output, SMPTE reader/generator (with cue list programming) and optional hard-disk recording

and 16-bit/64-times oversampling with 28-bit internal processing, the upshot of which is better sound quality. Again various permutations of the S3000 series followed: the simultaneously launched S3000i is identical to the S3000 but with onboard SCSI, while the CD3000i brings a built-in CD-ROM into that equation.

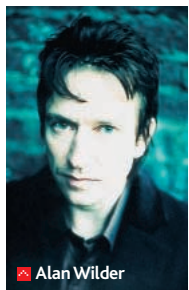
Are we here yet?

Fast-forward to 1998 and we arrive at Akai's current pick of crop: the S5000 and S6000. These are both 128-voice, 18-bit, 256Mb machines (providing the VOX64 expansion board is fitted to the former). In 1995 Akai had released another gamut of samplers based on S3000-generation technology (including the S3000XL, budget S2000 and 'beginners' S20) but instead of upgrading what had gone before, here was state-of-the-art sampling with a redesigned interface based around a huge screen, like a computer in operation.

And there's the rub: the likes of NemeSys's software *GigaSampler* can stream 32-bit samples (effectively) with no RAM restrictions in real-time directly from hard disk. Has hardware-based sampling met its nemesis? Time will tell. **FM**

FAMOUS USERS

Most people involved in modern music-making will have encountered an Akai S series sampler at one time or another, especially in Europe where the company has dominated the industry since the S900. And having said that, not all today's stars are tempted by Akai's latest and greatest wares. As reported in *FM106*, Norman Cook still uses a couple of S950s as the basis of his Fatboy Slim productions. And not all S612s are languishing forlorn and forgotten either: an S612/MD280 combination features on ex-Depeche Mode keys man Alan Wilder's online studio equipment listing. So there you go. If it's good enough for Alan Wilder, perhaps it's worth shelling out a dollar or two after all!



Alan Wilder

No. 5: Akai S series

S612/MD280

Akai's 1985 debut sampling combo is perhaps best left where it belongs: in the annals of history. But should you want one for its grainy, lo-fi sound, today they can be picked up very cheaply. I spotted an MD280 on the web for only \$1, not bad considering it originally cost £199!



S700

Launched at the same time as the ubiquitous S900, the low-cost, 2U, rackmountable, six-voice, 12-bit, 128Kb S700 has since disappeared into obscurity. It doesn't even feature on Akai Professional's online product timeline, hardly surprising really as it also uses 2.5-inch Quick Disks. Second-hand, they can be picked up for under £100. (A keyboard version, the X7000, was also released.)

S950

The mono S950 was somewhat overshadowed by its tempting stereo S1000 'twin' released at the same time (1988). Still, a tempting retail price of £1,349 (over £500 cheaper than its S900 forefather) saw the S950 shift a respectable 15,000 units in a five-year production run.



S900

Approximately 15,000 of these were sold in its 1986-88 production run. Now this former industry-standard heavyweight is probably only of interest to those seeking lo-fi sampled sounds, though it's worth noting Akai's ASK90 drum triggering option allowed each of its voices to be triggered separately. A fair asking price today would be around £100.



S1000

22,000 units of the first affordable 16-bit stereo sampler were sold between 1988 and 1993 (including the S1000HD, S1000PB and S1000KB variants). Second-hand, these crop up from anywhere between £200 and £450, depending on spec.



S1100

At £3,299, this 1990-vintage sampler was the first to include hard-disk recording along with handy pro features like an SMPTE reader and generator. It's still a popular workhorse today and therefore not a regular guest in *Reader ads*.

S01

Launched alongside the S2800 and S3000, the eight-voice, 16-bit, 2Mb S01 represented great value at £999 in 1993. It's still well suited to phrase sampling today.



S2800/S3000

Akai's self-professed 'next generation' brought analogue synth-style processing to sampled sound in 1992. A second-hand, 8Mb S2800 was recently advertised online for only £200 (not bad considering it originally retailed for £2,199) but the wildly varying prices depend on spec. The S3000 sold for £2,999 new.



S2000

Akai's 1995 low-cost 32-voice, 16-bit, 32Mb effort continued where the S01 left off, without so many compromises. Originally £999, it's around £350 today.



S20

1997 saw Akai 'morphing' the S01 with 1995's Remix16 DJ sampler to form a new eight-voice, 16-bit, 1Mb (expandable to 17Mb) phrase sampler for only £499.



S3000XL/S3200XL

1995's beige box line-up brought yet more sampling features, expandability and affordability to the S series. The S3000XL has the same spec as the S3000 but has most of the options already installed, costing around £800 second-hand. But some dealers are still advertising a new S3000XL for a mere £799!



S5000/S6000

The S6000 features a removable front panel. At its 1998 launch the S6000 retailed for £2,899 but today most retailers are selling it for £1,899, and the S5000 (pictured above) can be bought new for £1,099.