

ATMEL DREAM™ IC SOLUTIONS FOR KARAOKE

*For the best in Karaoke ...
... sing with Atmel*

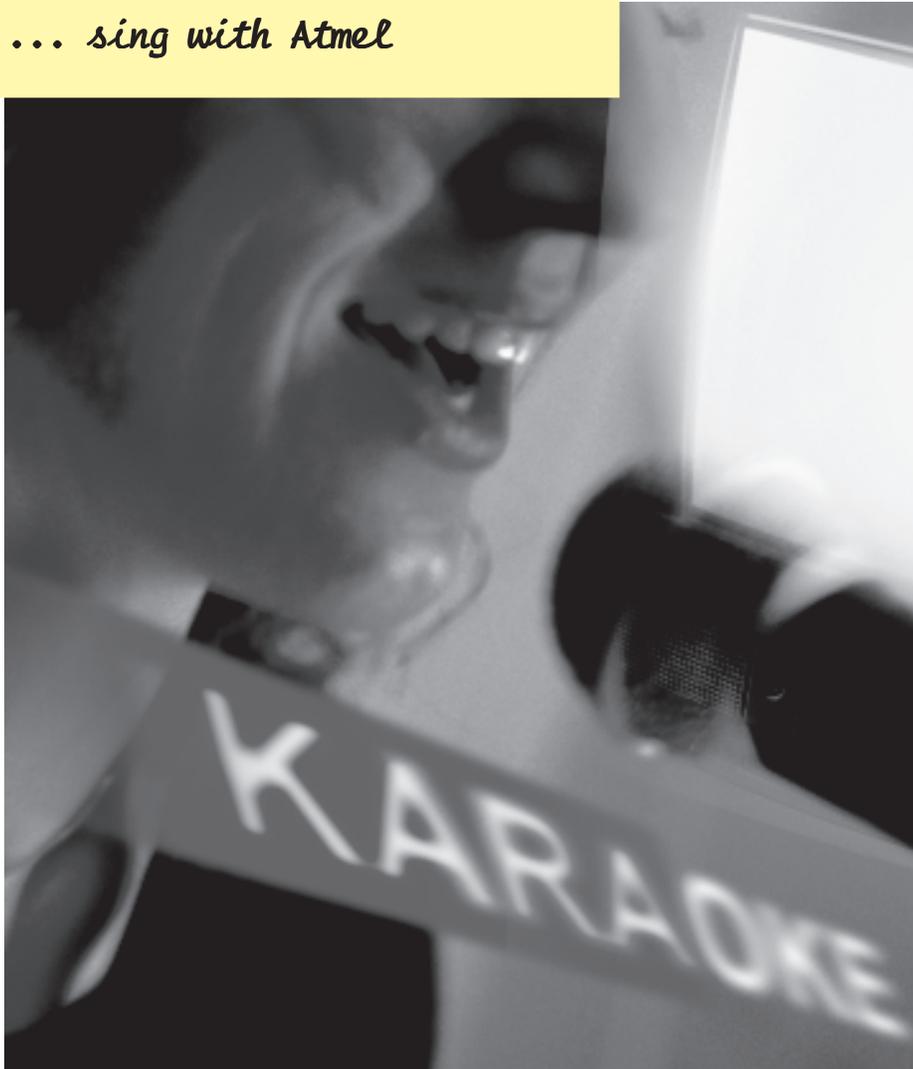


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Atmel's state-of-the-art Dream SAM97XX ICs cover the entire range of MIDI Karaoke applications, including:

- CMP Player
- VCD Karaoke
- Portable Karaoke
- Communications Karaoke
- Internet Karaoke
- Mobile Phone Karaoke

Dream SAM97XX ICs feature:

- High-quality wavetable synthesis with up to 128-voice polyphony
- Effects including reverb, chorus, equalizer and surround on 2 or 4 speakers
- Built-in MIDI control processor
- One comprehensive set of development tools for the entire product line
- High-quality sound sets including GS®-compatible sets with express permission of Roland® Corporation.
- Wide supply voltage range: 3V to 4.5V core, 3V to 5.5V periphery
- Single low-frequency clock

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Atmel's Dream SAM97XX sound processing ICs are ideal for the whole range of Karaoke applications. In addition to traditional in-place Karaoke installations, these include portable Karaoke, Web-based Karaoke and mobile phone-based Karaoke systems. They combine low cost with no compromise on sound quality.

SAM9708

The **SAM9708** is a top-of-the-line synthesizer IC that provides up to 128 polyphonic voices. Its performance is due to its unique architecture which includes two 64-voice RISC DSP cores and two high speed CISC control processors. These are combined with a versatile programmable digital audio routing between the two DSPs. The device provides 16 channels audio in, 16 channels audio out at 22 bits audio per channel, 28 bits internal audio path, plus 2 serial MIDI in and 2 serial MIDI out connections. The device is supplied in a TQFP144 space-saving package. It requires a 3.3V core supply and a 3V to 5.5V periphery supply. Its power-down mode makes it ideal for stand-alone systems.

SAM9703

The **SAM9703** is the industry-standard professional sound synthesizer for Karaoke applications. Its all-in-one design includes a MIDI control processor, a DSP for synthesis, compatible effects: reverb and chorus, 2-channel microphone echo pro-cessing, programmable spatializer or 4-channel surround and a 4-band stereo equalizer. Its high-quality synthesis provides 48-voice polyphony plus reverb/chorus (34 voices if all features are on). Its TQFP100 packaging is a space saver. It requires a 3.3V core supply and a 3V to 5.5V periphery supply.

SAM9713

The **SAM9713** is a powerful low-cost sound synthesizer for cost-sensitive portable Karaoke or VCD Karaoke systems. Its all-in-one design includes the MIDI control processor, a DSP for synthesis, compatible effects: reverb and chorus, a programmable Spatializer or four channels surround and a 4-band stereo equalizer. It provides state-of-the-art synthesis for the best quality/price ratio products with its 34-voice polyphony and effects. The SAM9713 is supplied in a TQFP80 space-saving package. It features a 3.3V core supply, and a 3V to 5.5V periphery supply, with a power-down mode for battery-powered applications.

SAM9733

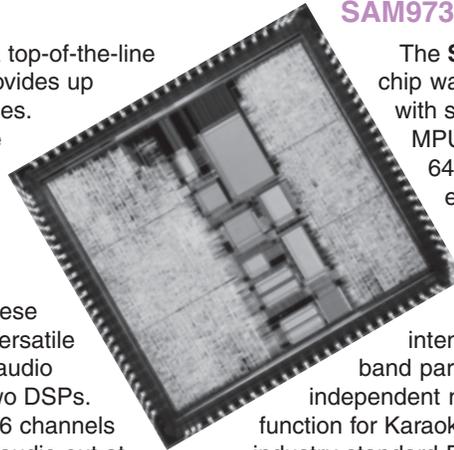
The **SAM9733** is a single-chip wavetable synthesizer with serial MIDI in and out, MPU-401 (UART), up to 64-voice polyphony and effects. These include reverb and chorus, on MIDI and/or audio in, surround on 2 or 4 speakers with intensity/delay control, 4-band parametric equalization, independent microphone echo function for Karaoke. It is supplied in an industry-standard PQFP100 package. It has a 3.3V core supply and 3V to 5.5V periphery supply, with power-down mode.

SAM9755

The **SAM9755** is designed for Karaoke applications on mobile phones and Internet applications. It integrates into a single chip a SAM97XX core (64-slot DSP plus 16-bit processor), a 32k x 16 RAM and glue logic. A built-in 32 MHz 16-bit microcontroller and 64-voice synthesizer and effects processor DSP provide high-quality wavetable sound synthesis and audio effects: reverb, chorus, surround, equalizer. With the addition of an external ROM or Flash and a stereo DAC, a complete MIDI sound unit can be built, including reverb and chorus effects, parametric equalizer and surround effects. The SAM9755 is housed in a CBGA 100 package.

SAM9773/93

The **SAM9773/93** single-chip synthesizer with effects provides a complete MIDI sound system, only an external DAC is required. State-of-the-art synthesis for best quality/price products is provided with 38-voice polyphony plus effects. SAM9773 is equipped with a serial MIDI interface, SAM9793 with a parallel interface. They are ideal for battery-powered operation, with low power consumption and a power-down mode. Their supply voltage range is 2.7V core, 3V to 5.5V periphery. SAM9773 is supplied in a TQFP80 package, SAM9793 in PQFP100, giving a small footprint and easy mounting.



Atmel provides solutions for the entire range of Karaoke systems