EPSON

Embedded Systems 2001
Nürnberg, Germany
14.–16. February 2001
Hall 12
Stand O03

NEWSLETTER 2001

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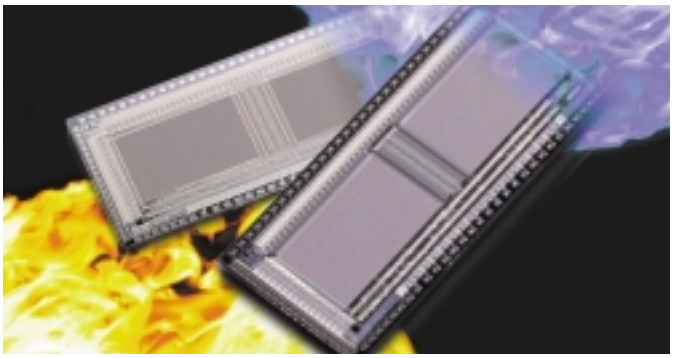
ASSP INTEGRATED TEMPERATURE SENSOR — SED1575

LCD-Controller/Driver With Integrated Temperature Sensor

EPSON now releases the LCD Controller/Drivers SED1575 and SED157A with integrated analog temperature sensor. These devices replace a LCD Controller/Driver plus NTC when used for COG technology, making the assembly of an LCD module easier. Even when using a TCP package the temperature sensor can be used through correlation measurements. As with all types of the SED15xx family the SED1575 and SED157A have a DC/DC converter and an integrated display RAM on chip. Both devices are specified for the extended temperature range from –40°C to +85°C, making them the ideal part for automotive and other temperature sensitive applications.

EPSON's LCD Controller/Driver with integrated temperature sensor is now available and can be ordered from EPSON EUROPE ELECTRONICS using these order codes: SED1575DAB or SED157ADBB respectively. EPSON will continue to supply their customers with the standard SED1575DOB/TOA and SED157ADOB/TOA without integrated temperature sensor.



	SED1575	SED157A
Resolution (Plxel)	168 x 65	224 x 65
Duty	1/65	1/65
RAM (bit)	200 x 65	256 x 65
Booster	Ext, 2x, 3x, 4x	
MCU I/F	8-bit parallel or serial	
Package	Die (TCP)	

ASMIC NEW 32-BIT MEMBER — E0C332S08

New Member of the 32-Bit RISC Series developed

EPSON has developed the E0C332S08 as a basic model in the E0C33 series. This MCU is based on the 32-bit RISC E0C33209 and used for OA equipment and portable devices. It has inherited the features of high speed operation and low power consumption, while being a compact model keeping peripheral functions and pin count to the minimum required level.

DSP functions such as voice synthesis processing can be realised using the built-in MAC (multiplication & accumulation) instructions - 2 clock cycles - which makes this IC especially suitable for AV applications, industrial control and amusement equipment.

Various middleware is offered for voice compression & decompression, JPEG compression & decompression and audio functionality, which provides capability to reduce software development time at a high quality standard.

ASMIC

BUILT-IN ROM

E0C332129 / E0C33264

32-Bit RISC with built-in ROM debuts on the market

ESPON has developed a 32 bit RISC MCU integrating enhanced peripheral circuits with built-in ROM based on the EPSON E0C33209.
Two models will be launched to the market: the mask ROM built-in E0C33264 and the E0C332129 models.
Both devices include a built-in high-speed MAC (multiplication & accumulation) instruction, a multiplexed AD converter, DMA, HDMA, 4 ch. SIO and various timers.
These functions make them suitable for classic DSP applications especially for software codec and signal processing (voice recognition and text-to-speech). Typical applications would be multimedia equipment such as DVD, HMI and classic PDA terminals.
For software development, EPSON has prepared a wide range of license-free middleware including voice compression and decompression, voice recognition, JPEG, audio, real time operation system, Graphic user interface and compact flash card interface.

ASIC

IEEE1394 INTERFACE

IEEE1394

Top Level Transfer Rate realized

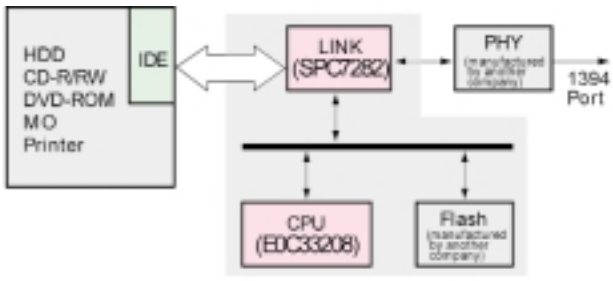


Fig.1: IEEE1394 4-chip structure

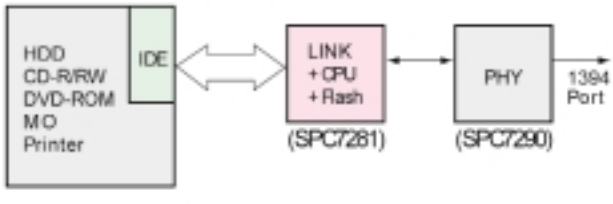


Fig.2: System Diagram of IEEE1394 bridge system

IEEE1394 has become the data transfer standard and is currently used for digital video cameras but expected to be more widely used in the digital home appliance field and PC related fields, and particularly in the area of storage equipment such as HDDs and CD-ROMs.

Responding to the demands for IEEE1394 in the storage equipment field, EPSON is developing the SPC7281 and SPC7290 that link IEEE1394 with IDE (ATAPI - interface connecting PC-AT compatible equipment with hard disks and being the mainstream in the current storage equipment market).

1) SPC7281: System LSI integrated link IC (SPC7282), 32-bit RISC (E0C33208) and flash memory

2) SPC7290: PHY chip

The system using these two LSIs can attain a top-level transfer rate of 32 MB/sec because the transfer rate has already been confirmed with the system using current SPC7282. The use of these LSIs make it easy to develop an IEEE1394 compatible storage device capable of high-speed data transfer from storage equipment that has an IDE interface.

EPSON is furthermore working on the development of a complete interface board using the two LSIs. A simple connection from this board to an IDE port would then make it possible to easily realize high-speed storage equipment compliant to the IEEE 1394.

OSCILLATOR WITH ADSL FREQUENCY

VG-4231CA

VCXO features an extremely wide pull range

EPSON is continuing its efforts in launching VCXOs with higher frequencies and announces another valuable core component for the digital age: the voltage controlled crystal oscillator (VCXO) VG-4231CA.
The remarkably wide pull range of +/-100x10^{-6} is one of the key features of this product.

The VG-4231CA is an oscillator developed for the needs of networking equipment and especially for the ADSL market. Another target of this component is the use in Digital Set-Top Boxes (D-STB). The optional extended range from –40° to +85°C in addition to the standard operating temperature of –20° to +70°C significantly extends the field of possible applications. Operating at 3.3 V, the use of a CMOS-IC inside together with an output enable function allows a low current consumption. Besides the ADSL-frequency of 35.328 MHz it is basically available in a range from 16 to 41 MHz.

The VG-4231CA comes in a compatible 7x5 mm ceramic package.

EPSON EXPANDS LCD PRODUCTION

EPSON is expanding the production of Reflective Color LCDs for Mobile Equipment

Seiko Epson Corporation is making a primary investment of approximately 28 billion yen to build on the grounds of its Toyoshina Plant - the largest factory within the Seiko Epson Group. The site is intended to expand the production capacity for MD-TFD (Mobile Digital Thin Film Diode) for next-generation mobile terminals that can handle motion images. Construction started on 4 July, 2000 with full factory operation targeted for mid 2001.
The newly announced MD-TFD product with an overwhelmingly low power consumption (less than 5 mW if showing 160 x RGB x 240 dot) will be produced in the newly installed factory and production will start at the rate of 1.5 million units per month up to 4.5 million units/month after completion.

Additionally the existing factory will double its capacities so a production of 3.0 million units/month by August 2001 (6.0 million units/month in 2002) is planned.
At the same time - with boosting MD-TFD capacity at the Toyoshina Plant – SEIKO EPSON is increasing the production of passive reflective color LCDs at the Toyoshina Plant and Suzhou Epson Co. Ltd. in China.
SEIKO EPSON seeks to assure that the new buildings and equipment will be energy-efficient and environmentally friendly, reducing energy consumption by 50% as compared to existing lines, running at zero emissions and recovering and reusing 70% of pure water.

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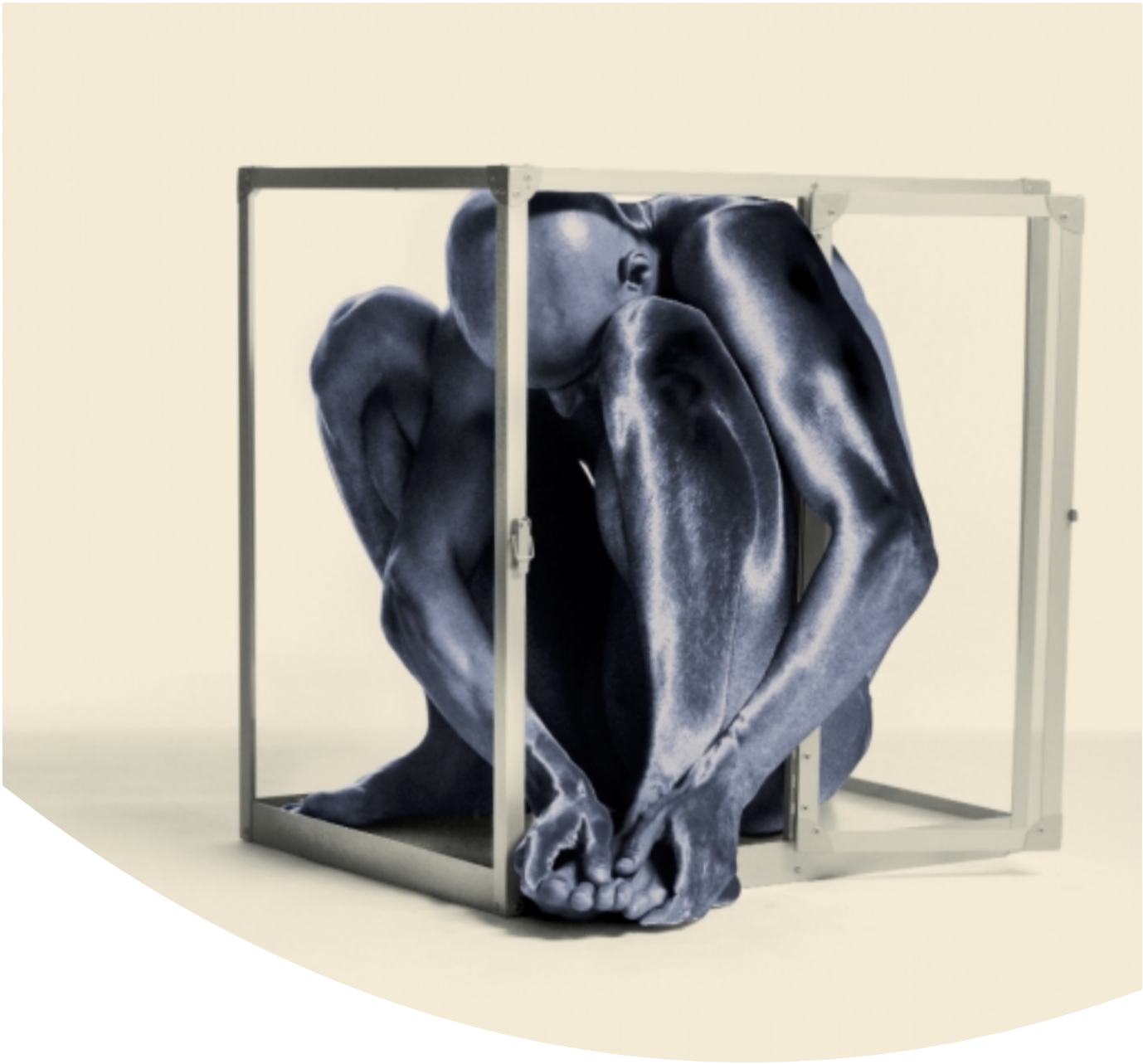

When you're short on space, it's best to pack things tightly.

Space Saving – the EPSON solution for Mobile Terminals.

Packing the maximum into minimum space – that's one of the special strengths of our electronic components. A perfect example of our Energy Saving concept in action, combining maximum economy with optimal performance. And we've also extended the principle to the fields of Car Information Systems, Home Appliances and Networking.

To learn more about the benefits of EPSON's Energy Saving concept, visit www.epson-electronics.de or contact us at info@epson-electronics.de.

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