

# Product Brief

## SDA 6000

### M2

The SDA 6000 integrates a high-speed 16-Bit C166 microcontroller with digital signal processing for VBI data acquisition and the most flexible display controller ever seen since Megatext.



# SDA 6000

#### Potential Application

The SDA 6000 is the cost-effective solution for consumer products that require flexible pixel graphics for the optimum user interface:

- Television sets with
  - Teletext up to Level 2.5
  - Electronic Programme Guides (NexTView and others)
  - HTML-based applications
- Telecommunication devices with grayscale or color pixel displays
- Display-oriented consumer info-devices

#### Features

- True 16-Bit microcontroller core (C166) clocked at 33 MHz for excellent real-time support
- External Memory Interface supporting SDRAM (16 or 64 Mbit), ROM and FLASH up to 32 Mbit
- P-MQFP-128 package with 0.8 mm pin pitch for easy soldering

- 0.25  $\mu\text{m}$  CMOS technology for high performance and low power dissipation (3.3/2.5 V)
- New Digital data slicer for high-quality VBI line acquisition even with distorted CVBS signals
- Independent WSS processing on second CVBS input for background channel data capturing in two-tuner environments (e.g. NexTView applications)

#### Dedicated Tools

To increase productivity in Graphical User Interface (GUI) development, a suite of highly innovative software tools has been created: the M2 Advanced Tools Environment (MATE) Toolbox

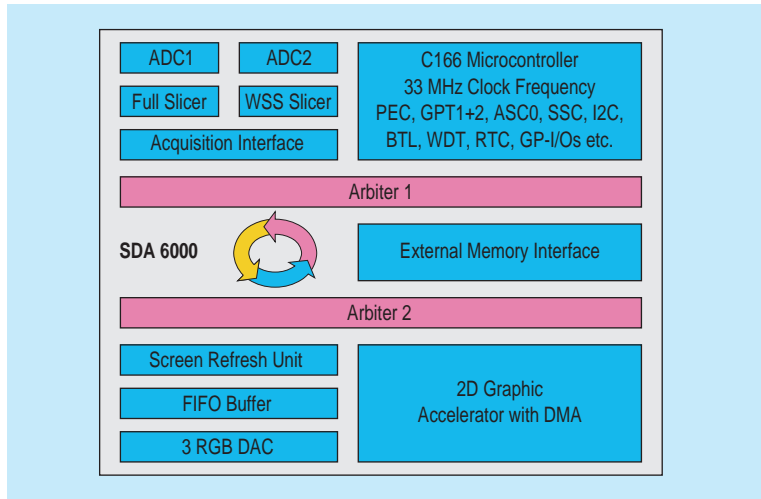
- Multi-Level graphics API: flexibility through basic GDI functions, efficiency through powerful OSD Service Interface Commerce

- M2 Builder with comprehensive resource editing, management and code generation facilities
- M2 Display Simulator allowing to prototype SDA 6000 - based applications on a standard developer's PC

#### Development and Support Package

- Data Sheet/Specification
- Tutorial: Getting Started with M2
- Reference layout and evaluation board for easy and fast development start
- Demo CD-ROM with trial versions of many useful tools
- Application notes and technical articles
- A huge selection of tools that can facilitate various aspects of software development with M2 and other C166-based products can be found at <http://www.spacetools.com>

# SDA 6000 Block Diagram

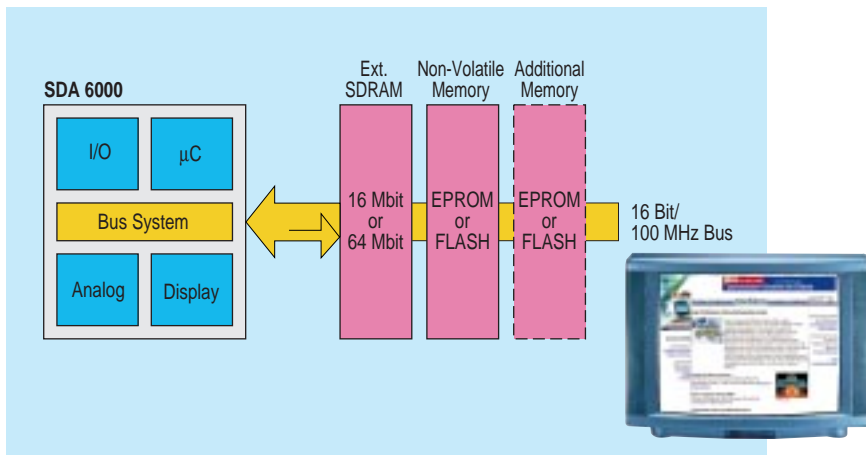


## The SDA 6000 efficiently integrates these powerful functional blocks:

- Powerful 16-Bit microcontroller core (compatible to C166 family) running at 33 MHz
- 2 kB IRAM and 2 kB XRAM for excellent real-time support
- Peripherals similar to SAB C161RI (WDT, RTC etc.)
- 36 I/O Pins (up to 42 depending on memory configuration)
- External Memory Interface supporting PC100-type SDRAM (16/64 Mbit), EPROM and/or FLASH with up to 3 devices in parallel
- New Digital slicer with 4 different programmable data services per VBI field and independent second CVBS signal WSS slicing
- 2D Graphic Accelerator with DMA facility and hardware support for fast character-drawing
- Fully flexible Screen Refresh Unit supporting all display modes from 40x25 characters at 50 Hz up to SVGA 800x600 pixels in 64 k colors at 75 Hz progressive scan
- Triple 5/6/5-Bit RGB-DAC with pixelclock up to 50 MHz
- Internal bus/arbitration and buffer system with optimized priorities for maximum throughput and minimum latency of memory access

## Availability

Samples of the SDA 6000 are available for evaluation in 1999 with complete documentation. Our highly experienced engineering support team, as well as our worldwide FAE network can assist you with your design in work. Please contact your local office for further details. Ask for your evaluation copy of the software development tools CD-ROM.



MATE Toolbox for Higher Productivity

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