

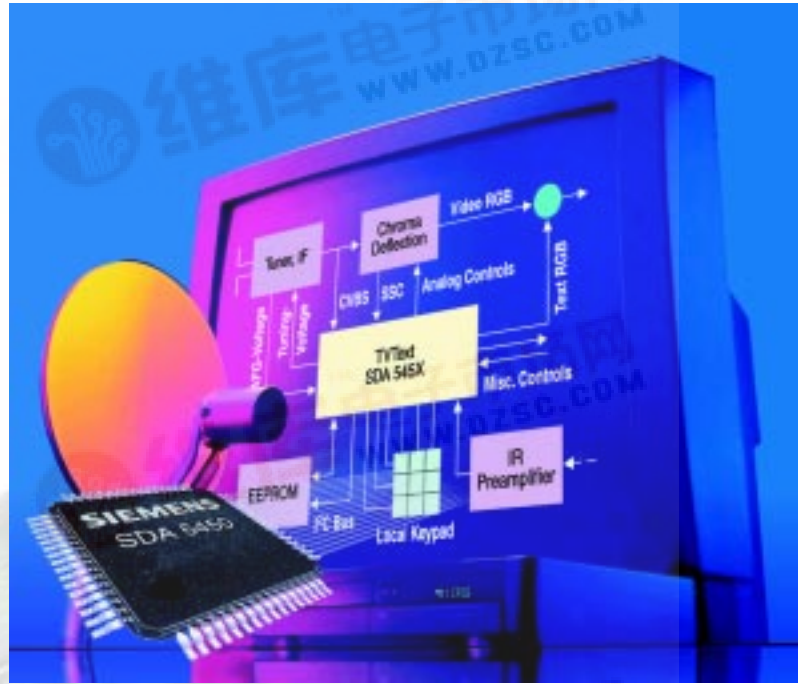
**SIEMENS**

# Product Brief

## TVText Plus

### SDA 545X

#### Video Text Controller



#### Potential Application

The TVText Plus Family offers a flexible and cost effective solution for low end up to mid range TV sets

#### Features

- 8-Bit-Microcontroller (8051-compatible) with up to 24 MHz (min. 250 ns)
- Videotext decoder and on-screen-display-generator in one chip.
- Display memory from 1 up to 10 pages
- Internal ROM from 16 Kbyte up to 64 Kbyte
- ROMless version with port to external EPROM/SRAM (max. 512 Kbyte)
- internal RAM 256 Byte + 1 Kbyte XRAM (10-page-versions only)
- 4-Channel-ADC (8-Bit resolution)
- 6-Channel-PWM (8-Bit resolution)
- 2-Channel-PWM (14-Bit resolution)
- 2 Timers, 1 Watchdog- Timer + 1 dedicated IR-Timer
- CLUT with 8 FG/8 BG out of 64 colors
- 56 Characters per Line for 16:9 CRTs

#### Software Support

- Worldwide tested Firmware-Modules for data acquisition and infrared detection
- Display editor for easy OSD programming and font definition
- Electronic Program Guide provided by Tara Systems (Now & Next, this channel)
- Various Character Sets available

#### Hardware Support

- Various Emulators (supported by Kleinhenz, Dr. Krohn & Stiller, Hitex)
- Demonstration board with remote control and Demo-Software
- OTP-version for development, ramp-up and peak-production

Sales Code	Internal ROM	External ROM	Number of Pages	XRAM
SDA 5450	-	512 Kb	10	1 Kb
SDA 5451	16 Kb	-	1	-
SDA 5452	24 Kb	-	1	-
SDA 5453	32 Kb	-	1	-
SDA 5454	40 Kb	-	10	1 Kb
SDA 5455	48 Kb	-	10	1 Kb
SDA 5456	56 Kb	-	10	1 Kb
SDA 5457	64 Kb	-	10	1 Kb
SDA 545X OTP	64 Kb OTP	-	10	1 Kb



Character Set - Language	Latin	Cyrillic <sup>*)</sup>	Greek	Arabic <sup>*/**)</sup>
German	X	X	X	X
English	X	X	X	X
Scandinavian	X	—	X	X
Italian	X	—	X	X
French	X	—	X	X
Spanish	X	—	X	X
Icelandic	X	—	X	X
Greek	—	—	X	—
Polish	X	X	—	—
Czechian	X	X	—	—
Romanian	X	X	—	—
Serbian	X	X	—	—
Hungarian	X	X	—	—
Russian / Byellorussian	—	X	—	—
Lettish / Lithuanian	—	X	—	—
Ukrainian	—	X	—	—
Estonian	—	X	—	—
Arabic	—	—	—	X
Farsi	—	—	—	X

## Availability

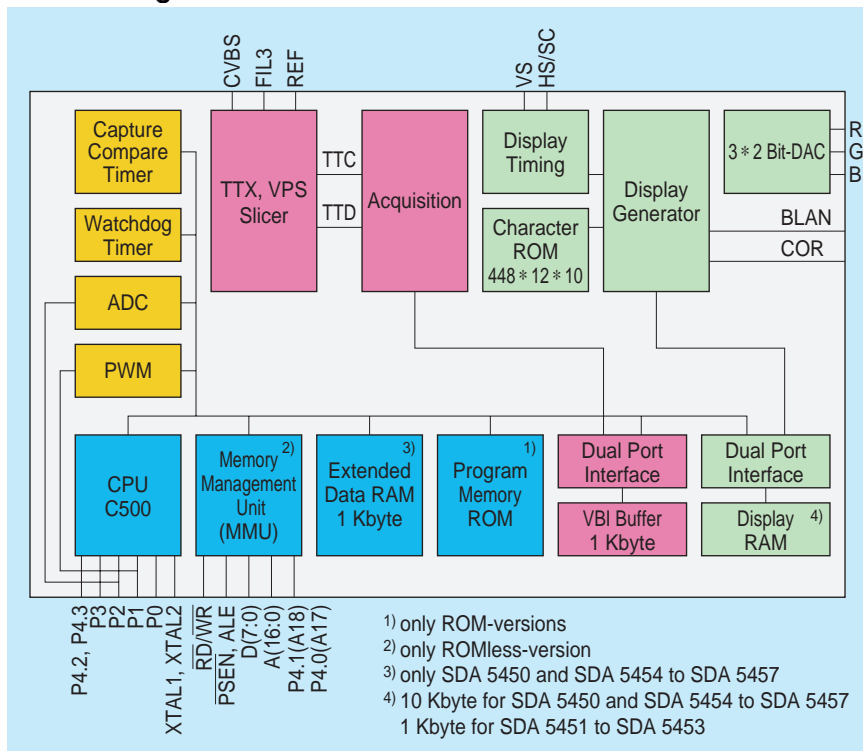
The SDA 545X is available in mass production. Please contact your local Siemens Office for further details.

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## Technical Highlights

- Fully 8051 compatible core
- I<sup>2</sup>C-Bus Control
- OTP with fully prog. pixel and code memory
- Packages  
P-SDIP-52, P-MQFP-64 (ROM versions)  
P-LCC-84, P-MQFP-80 (ROMless versions)

## Block Diagram



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<http://www.siemens.de/semiconductor>

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