

SIEMENS

ICs for Consumer Electronics

MEGATEXT

Slicer

Edition 10.94

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| MEGATEXT® Slicer | |
| Revision History: Original Version 10.94 | |
| Previous Releases: | |
| Page | Subjects (changes since last revision) |
| | |

Data Classification

Maximum Ratings

Maximum ratings are absolute ratings; exceeding only one of these values may cause irreversible damage to the integrated circuit.

Characteristics

The listed characteristics are ensured over the operating range of the integrated circuit. Typical characteristics specify mean values expected over the production spread. If not otherwise specified, typical characteristics apply at $T_A = 25\text{ °C}$ and the given supply voltage.

Operating Range

In the operating range the functions given in the circuit description are fulfilled.

For detailed technical information about “**Processing Guidelines**” and “**Quality Assurance**” for ICs, see our “**Short Form Catalog**”.

Edition 10.94

This edition was realized using the software system FrameMaker®.

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Registers for Slicer and Acquisition Control

Recommend setting of hardware register control bits:

R81 0010.0110

- slicer watchdog on
- no frequency compensation
- clock adjustment after CRI: middle
- slicing level calculation in each line

R99 1000.0010

- framing code window

R109 0001.0000

- TV-mode time constant

R81/D0(MCC) = 1 gives better results with the standard settings (7-bit delay for negativ reflection, 14-bit delay for positiv reflection) of the Philips/VG teletext test generator (calibrated distortion unit): 45 % versus 27 % eyeheight. In general for eyeheights generated by other reflections MCC = 0 gives better results.

Frequency compensation and MCC-control should not be used until a reliable signal and teletext quality judgement firmware is available.

Slicer Clock

The optimum slicer performance is achieved if the slicer is operated with the acquisition clock, i.e. control bit TD-to-TA = 0 (R112, D1).

If the slicer is operated with the display clock the slicer will adopt itself to this clock. However the number of slicing errors may encrease if the display clock follows large phase jumps of an external horizontal pulse and the clock frequency is considerably changing during the teletext data lines.

VPS

If the special line acquisition is activated by R99 (e.g. R99 = 10_H for VPS in line 16) this line is no more available for standard teletext. To find out whether a channel transmits VPS or not MEGATEXT has to try for some time to receive VPS in line 16. The reception of teletext pages of a transmitter that transmits teletext in line 16 will be disturbed during this VPS-check. The received pages may show missing rows.

Framing Window for VPS

Because of a bug the framing code window for the special line acquisition cannot be opened as wide as specified in the description of R99. It will close about 1 μs earlier. VPS-reception may become impossible if the VPS-data start is rather late within line 16.

To avoid this problem open the framing code window completely by setting R100 = F0_H.