

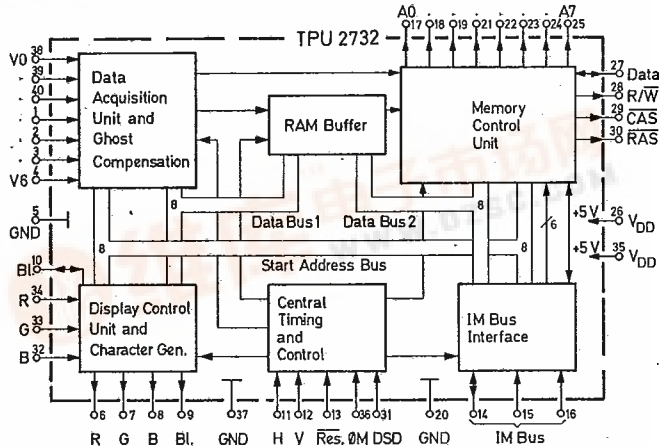
TPU2732, TPU2733 Teletext Processors for Level 1 Teletext (40-Pin Plastic Package)

TPU2732 and TPU2733 are specified to handle Level-1-Teletext information (in German: Videotext) as it is transmitted today by the TV broadcast stations in Great Britain, Germany and other European countries. In this function, they are part of the DIGIT2000 digital TV system and work in conjunction with the other VLSI circuits and processors of this system. The Teletext adapter designed with the TPU 2732 or TPU2733 is very simple and economic, so that this new feature may now become common as it was not possible due to the high cost of former multichip solutions up to now.

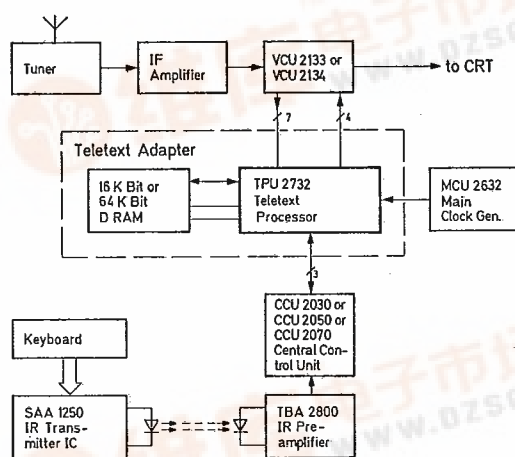
TPU2732 and TPU 2733 are N-channel MOS circuits, and contain on a single silicon chip the following functions:

- one-chip solution of the Teletext processing (except for external RAM)
- ghost compensation to eliminate the effects of ghost pictures
- as input signal is used the 7-bit digitized video signal delivered in a parallel Gray code by the VCU2133 or VCU2134 Video Codec
- reduced access time is provided for the Teletext pages by receiving and storing up to eight pages in one go
- up to eight stored pages
- function extended by automatic language-dependent character selection
- switchover facility PAL/NTSC (TPU2732) or PAL/D2-MAC (TPU2733)

As external RAM can be used either one 64 K x 1 bit Dynamic RAM or one 16 K x 1 bit Dynamic RAM. So, the RAM capacity is flexible to store 8 or 2 pages. The RAMs can be standard types. Via the IM bus the CCU can read from and write into all RAM locations and controls the TPU by loading the appropriate registers in the RAM, so that the TPU can be used to display text from other sources. The TPU can display a list of contents of the stored eight pages (menu) all by itself.



TPU2732 Block Diagram



Teletext application block diagram

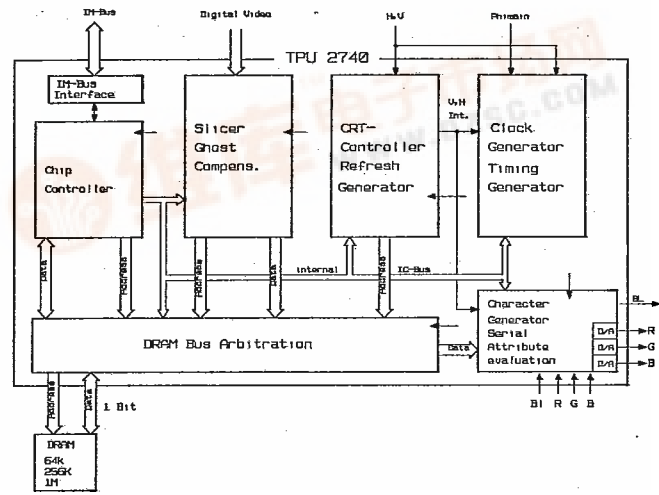
TPU2740 Teletext Processor for Level 1 Teletext with Enhanced Display Capabilities (40-Pin Plastic Package)

The TPU2740 is specified to handle Level-1-Teletext with additional display features, and can replace the predecessors TPU2732 and TPU2733. It is part of the DIGIT2000 digital TV system.

The TPU2740 is an N-channel MOS circuit which has the following features:

- CRT controller for a character display and vertical scrolling function
- input is the digitized video signal (7 bits), supplied in the Gray code by the VCU2133 or VCU2134 Video Codec
- ghost compensation eliminates the influence of reflections
- IM bus interface for communication with the CCU
- hardware magazine and page selection with eight page request registers
- DRAM interface for one external DRAM of either 64 K bits, 256 K bits or 1 M bit
- storage of: max. 8 pages (64 K bit DRAM); max. 32 pages (256 K bit DRAM); max. 128 pages (1 M bit DRAM)
- switchover facility PAL/NTSC/D2-MAC
- FLOF

- full-channel Teletext
- three user-definable characters
- flicker-free display optional (100 Hz vertical)
- enhanced character resolution (matrix 10 x 12)



TPU2740 Block Diagram