ONE-CHIP 8 PAGES
TELETEXT SOLUTION

Europe Technologies

Preliminary Information concerns new products in the sampling or pre-production phase of development. Characterisitcs are subject to change without notice.

Features

- Digital Teletext device with integrated digital dataslicer.
- Height pages of on-chip display RAM.
- Automatic detection of packet 8/30 (FLOF & TOP decoding).
- Video Programming System (VPS) decoding
- Wide Screen Signaling (WSS) decoding
- Pan-European, Cyrillic and Arabic character sets
- PC bus Interface (I^2C compatible)
- Digital RGB output
- Single 13.875 MHz crystal oscillator
- Mixed 3.3 and 5 V supply voltage

- Minimum software requirement.
- Flicker-free packet 26 processing on chip.
- Program delivery control (PDC).
- Menu page capability.
- Instantaneous page memory clear.
- Two Digital PLL to manage the composite synchronization signal.
- 8 Pages fastext decoder
- TOP decoder with Basic Top Table (BTT) and Additional Information Tables (AITs)
- 4 pages in Favorite Mode
- Direct access to subtitles
- Designed for reception of Teletext and Sync. Extraction under poor signals conditions.

Overview

The One-chip 8 pages Teletext device is an intelligent single-chip teletext decoder for use with 625 line TV transmissions having teletext in the Vertical Blanking Interval (VBI). The device integrates an on-chip digital data slicer and a decoder to provide a flexible teletext solution incor-porating internal software to implement FLOF and TOP teletext decoding auto-matically. Additio-nally, it supports decoding of Video Programming System (VPS) signals, and Wide Screen Signaling (WSS) data capture and storage.

The One-chip is part of the ET Teletext family of devices. ET Teletext supports a comprehensive range of 29 West and East European languages, in a single device. Other devices are available in this family that support Cyrillic or Arabic language.
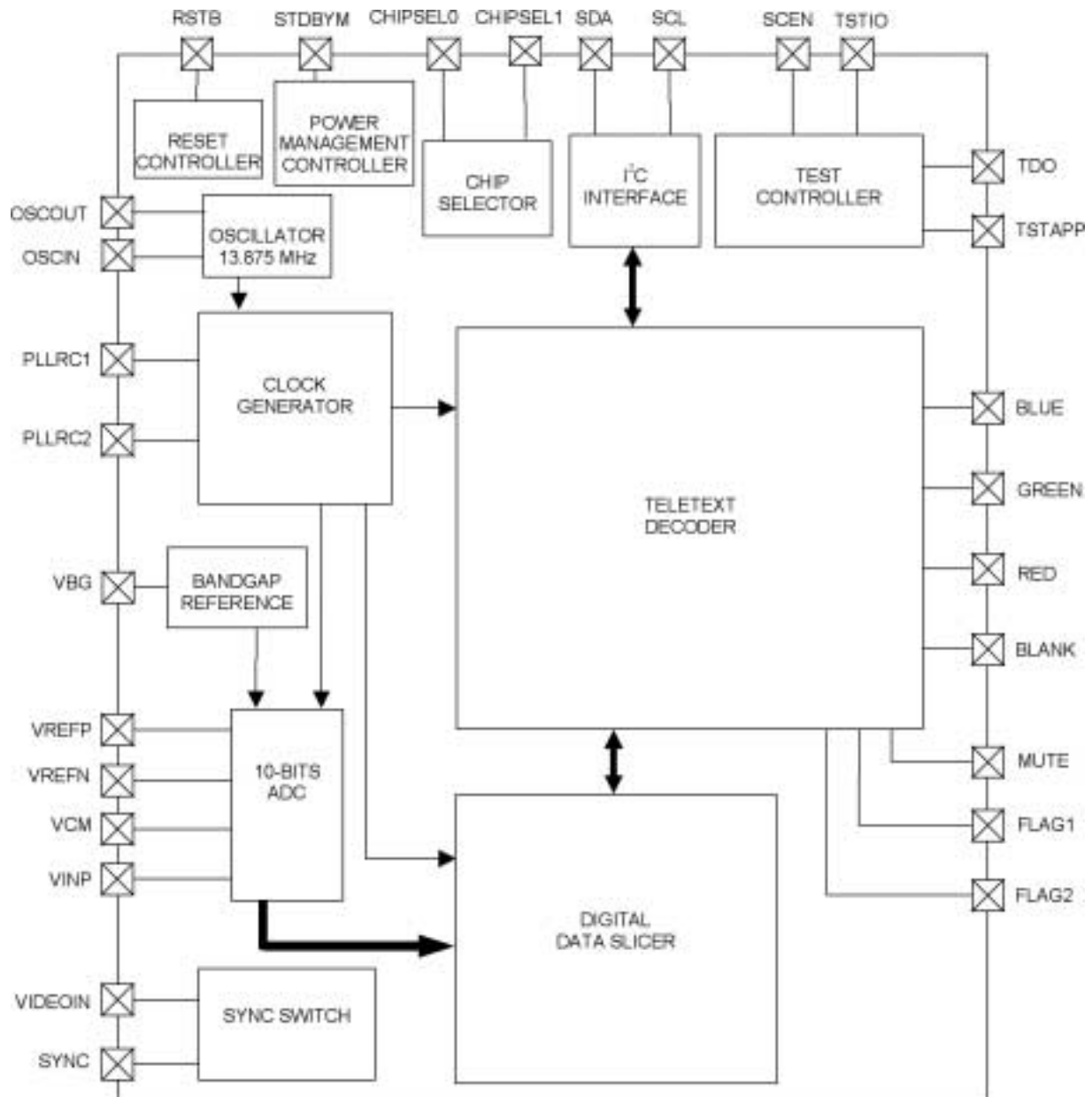
On-chip processing of packet 26 characters (flicker free) is auto-matically implemented as required. All packets of type 26 are processed in 'real time' without the need for any additional memory. This allows the decoder to store eight pages of teletext irrespective of the language selected and the mode of operation.

The video unit is controlled by an on-chip 11.5 MIPs micro-coded processor which manages all the teletext processing requirements, including ghost row processing and TOP table processing. All teletext data is processed in 'real time'. The output of the device is RGB and blank signals.

Device management is by simple high level commands for all features. The commands allow the microcontroller of the TV to communicate with the One-chip through an I^2C interface. These commands have been designed to give a full software compatibility between the entire ET Teletext family.

In addition to the FLOF and TOP modes, the One-chip decoder has a default Normal mode for any TV channel that is not transmitting FLOF or TOP. The decoder is ideally suited to VCR applications as it is able to receive and decode PDC information from packets 26 and 8/30 and store this information inside the decoder. In this mode of operation, memory can also be assigned for menu pages (pages downloaded from main micro-processor).