eZSelect™ TV Program Blocking Device

Provides consumer-programmable protection

ZiLOG's eZSelect family of advanced violence-blocking integrated circuits (V-Chips) provides programmable one-chip solutions to protect viewers from television shows that contain material they deem offensive. The eZSelect family features chips that are easily programmable by the consumer, allowing the end user to determine program access.

Decodes and blocks automatically

The eZSelect Z86130 and Z86230 offer low-cost complete solutions for parental control applications in TV sets and VCRs. The eZSelect chips process Vertical Blanking Interval (VBI) data conforming to the transmission format defined in the Television Decoder Circuits Act of 1990 and in accordance with the Electronics Industry Association specification 608 (EIA-608). With minimal communications and control overhead, eZSelect products process the Content Advisory Program Rating of an incoming video program and output the PB (Program Blocking) signal as programmed. eZSelect chips also are compatible with other ZiLOG controls for on-screen display and closed captioning.

Smart V-Chip simplifies design

The Z86230 simplifies design efforts as a one-chip solution to decode and recognize which shows will be blocked. Coupling with a standalone line 21 decoder such as Z86129 for Extended Data Service (XDS), the Z86230 supports two different I^{2}C addresses, enhancing its ability to select and direct incoming data.

It features a full matrix table preprogrammed to support the blocking of age- and content-based program ratings and four existing North American Content Advisory Program Ratings systems, including:
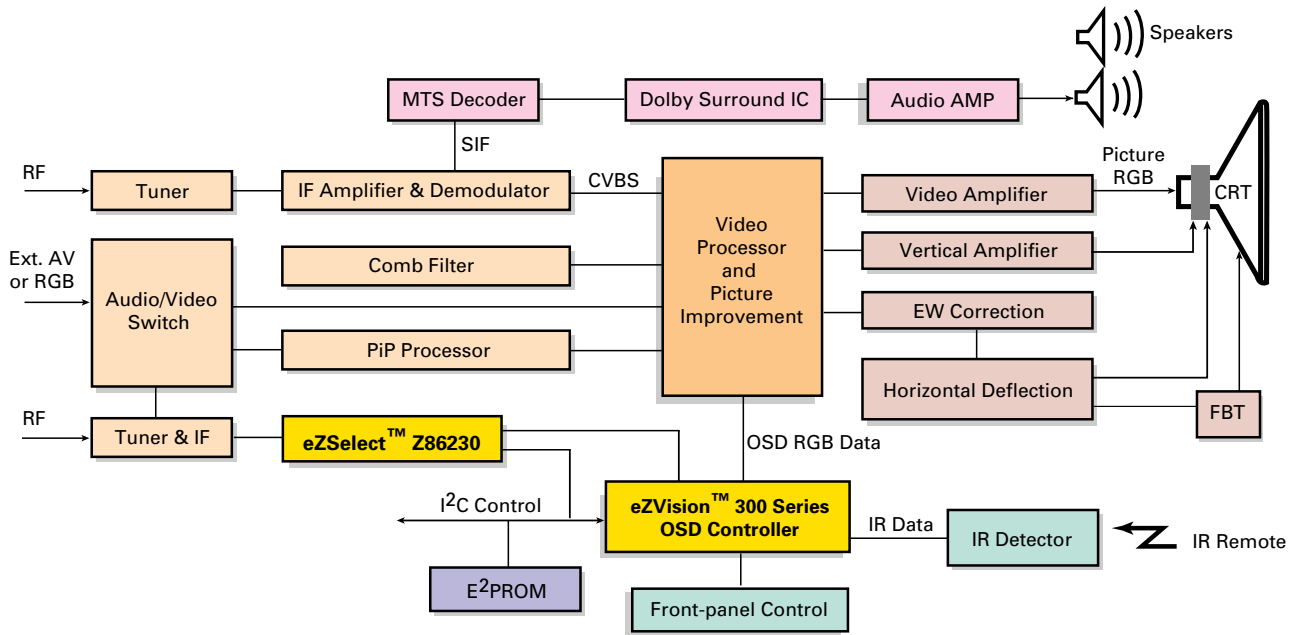
- MPAA/TV Parental Guidelines (TV PG)
- Canadian English Language
- Canadian French Language
- No Rating or Invalid Rating programs and None-rated programs in MPAA

Benefits

- Complete standalone Line 21 Decoder
- Cost-effective solution for TV, PiP TV, TVCR, and VCR applications
- Preprogrammed for MPAA & TV PG rating systems
- Full compliance with EIA-603 specifications and recommended practices
- Proven implementation codes to reduce time to market

Speakers

MTS Decoder → Dolby Surround IC → Audio AMP →

RF → Tuner → IF Amplifier & Demodulator — CVBS →

SIF

Ext. AV or RGB → Audio/Video Switch

Comb Filter

PiP Processor

Video Processor and Picture Improvement

Picture RGB

Video Amplifier → CRT

Vertical Amplifier

EW Correction

Horizontal Deflection → FBT

RF → Tuner & IF → **eZSelect™ Z86230**

OSD RGB Data

I²C Control

eZVision™ 300 Series OSD Controller — IR Data → IR Detector ← IR Remote

E²PROM

Front-panel Control

Features

- Software reset (I²C commands)
- XDS Data Decoding
- PB (Program Blocking) signal output
- H-sync input or Crystal (3.7 KHz) selection for timing reference

Z86230 Features

- Hardware Reset (pin 4 NRST)
- North American Content Program Rating System including Canadian Rating Systems
- Up to 32 bytes of I²C writing without checking "RDY" bit from Serial Status Register (SSR)
- Support 2 I²C slave addresses selection
- Dedicated INTRO (interrupt) output

Specifications

- 18-pin DIP and SOIC packages
- 12 MHz system clock
- 5V ±10% operating voltage I/O

Comparison of Z86130 and Z86230 Features

	Z86130	Z86230
Hardware reset (pin 4 NRST)		●
Software reset (I²C commands)	●	●
Canadian Rating System		●
MPAA & TV PG Rating System	●	●
XDS Data Decoding	●	●
Up to 32 bytes of I²C writing without checking "RDY" bit from Serial Status Register (SSR)		●
Support 2 I²C slave addresses selection		●
Program Blocking (PB) signal output	●	●
Dedicated INTRO (interrupt) output		●
H-sync input or Crystal (3.57 KHz) selection for timing reference	●	●