

FEATURES

- **SMPTE 292M and 259M compliant**
- **Supports data rates of 143, 177, 270, 360, 540, 1483.5, 1485 Mb/s**
- **Supports DVB-ASI at 270Mb/s**
- **Auto and Manual Modes for rate selection**
- **Standards indication in Auto Mode**
- **4:1 input multiplexor**
- **Loss of Signal (LOS) output**
- **Lock Detect Output**
- **On-chip Input and Output Termination**
- **Differential inputs and outputs**
- **Selectable automatic Mute or Bypass when not locked**
- **Manual Bypass function**
- **SD/HD indication output to control GS1528 Dual Slew-Rate Cable Driver**
- **Single 3.3V power supply**
- **Operating temperature range : 0°C to 70°C**

APPLICATIONS

SMPTE 292M and SMPTE 259M Serial Digital Interfaces

CIRCUIT DESCRIPTION

The GS1535 Multi-Rate Serial Digital Reclocker is designed to automatically recover the embedded clock signal and re-time the data from a SMPTE 292M or SMPTE 259M compliant digital video signal.

The device removes the high frequency jitter components from the bit-serial stream. Input termination is on-chip for seamless matching to 50Ω transmission lines. An LV PECL compliant output interfaces seamlessly to the GS1528 Cable Driver

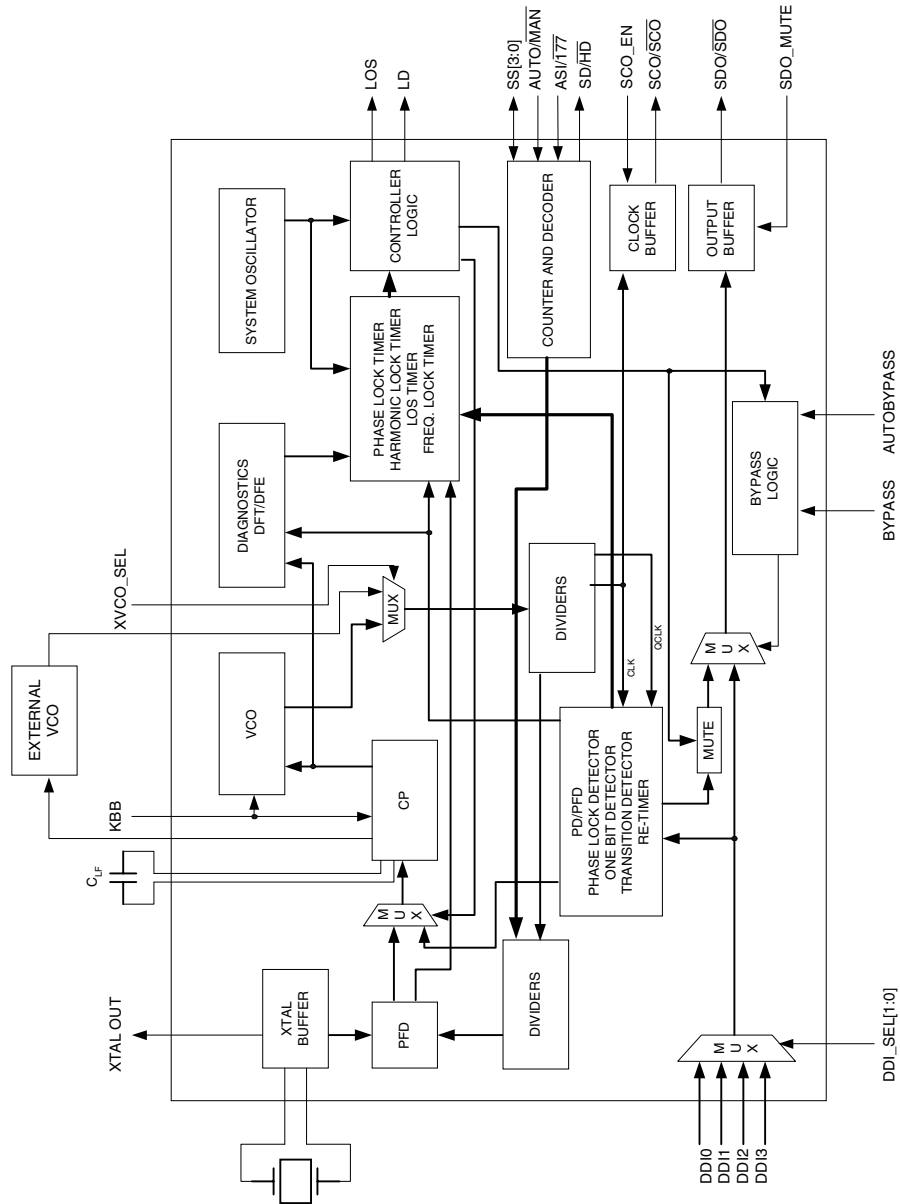
The GS1535 can operate in either auto or manual rate selection mode. In Auto mode the GS1535 automatically detects and locks onto an incoming SMPTE SDI data signal from 143Mb/s to 1.485Gb/s. For single rate data systems, the GS1535 can be configured to operate in manual mode. In both modes, the GS1535 requires only one external crystal to set the VCO frequency when not locked and provides adjustment free operation. In systems which require passing non-SMPTE data rates, the GS1535 will automatically or manually enter a bypass mode in order to pass the signal without reclocking.

The ASI/177 input pin allows for manual selection of support of either 177Mb/s or DVB-ASI inputs

ORDERING INFORMATION

PART NUMBER	PACKAGE	TEMPERATURE
GS1535-CFU	64 pin LQFP	0°C to 70°C
GS1535-CCU	64 pin BCC++	0°C to 70°C

FUNCTIONAL BLOCK DIAGRAM



GS1535

DOCUMENT IDENTIFICATION
PRODUCT BRIEF

REVISION NOTES:
New Document

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