


Video Amp Triple 5.5V 8-Pin SOIC Tube

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| Manufacturer: | Texas Instruments, Inc |
| Package/Case: | SOP-8 |
| Product Type: | Amplifier ICs |
| RoHS: | RoHS Compliant/Lead free  |
| Lifecycle: | Active |



Images are for reference only

[Inquiry](#)

General Description

Fabricated using the Silicon-Germanium (SiGe) BiCom-III process, the THS7316 is a low power single-supply 3-V to 5-V, 3-channel integrated video buffer. It incorporates a 5th-order modified Butterworth filter which is useful as a DAC reconstruction filter or an ADC anti-aliasing filter. The 36-MHz filter is a perfect choice for HDTV video which includes Y'P'BP'R 720p/1080i, G'B'R' (R'G'B'), and VGA/SVGA/XGA signals.

As part of the THS7316 flexibility, the input can be configured for ac or dc coupled inputs. The DC + 140-mV input offset shift to allow for a full sync dynamic range at the output with 0-V input. The AC coupled modes include a transparent sync-tip clamp option for signals with sync such as Y' or Green with sync. AC-coupled biasing for P'B/P'R/Non-sync channels can be achieved by adding an external resistor.

The THS7316 is the perfect choice for all output buffer applications. Its rail-to-rail output stage with 6-dB gain allows for both ac and dc line driving. The ability to drive 2 video lines per channel, or 75- loads, allows for maximum flexibility as a video line driver. The 18.3-mA total quiescent current makes it an excellent choice for USB powered, portable, or other power sensitive video applications.

The THS7316 is available in a small SOIC-8 package that is RoHS compliant.

Key Features

3 HDTV Video Amplifiers for Y'P'BP'R 720p and 1080i, G'B'R' (R'G'B'), VGA/SVGA/XGA

Integrated Low-Pass Filters
5th-Order 36-MHz (-3 dB) Butterworth Filter
-1 dB Passband Bandwidth at 31 MHz

30 dB Attenuation at 74 MHz

Versatile Input Biasing
DC-Coupled With 140-mV Input Shift

AC-Coupled with Sync-Tip Clamp

Allows AC-Coupled With Biasing

Built-in 6-dB Gain (2V/V)

3-V to 5-V Single Supply Operation

Rail-to-Rail Output:
Output Swings Within 100 mV From the Rails Allowing AC or DC Output Coupling

Supports Driving 2 Lines per Channel

Low 18.3-mA at 3.3-V Total Quiescent Current

Low Differential Gain/Phase of 0.1% / 0.1°

SOIC-8 Package

APPLICATIONS
Set Top Box Output Video Buffering

PVR/DVDR Output Buffering

USB/Portable Low Power Video Buffering

Recommended For You

THS3092D

Texas Instruments, Inc

SOP-8

THS7316DR

Texas Instruments, Inc

SOP-8

THS4131IDGNR

Texas Instruments, Inc

MSOP8

THS4011CD

Texas Instruments, Inc

SOP

THS7374IPW

Texas Instruments, Inc

TSSOP14

THS6184RHFR

Texas Instruments, Inc

QFN

THS4503IDGN

Texas Instruments, Inc

MSOP8

THS7376IPWR

Texas Instruments, Inc

TSSOP14

THS7314D

Texas Instruments, Inc

SOP8

THS4130IDGK

Texas Instruments, Inc
MSOP8

THS7353PW

Texas Instruments, Inc
TSSOP20

THS4551IRGTR

Texas Instruments, Inc
VQFN16

THS4281D

Texas Instruments, Inc
SOIC-8

THS4631D

Texas Instruments, Inc
SOP-8

THS3061DGN

Texas Instruments, Inc
MSOP8