
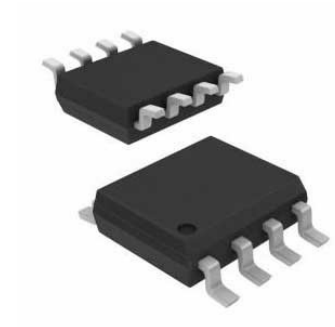


## Video Amp Triple 5.5V 8-Pin SOIC T/R

<b>Manufacturer:</b>	<a href="#">Texas Instruments, Inc</a>
<b>Package/Case:</b>	SOP8
<b>Product Type:</b>	Amplifier ICs
<b>RoHS:</b>	RoHS Compliant/Lead free 
<b>Lifecycle:</b>	Active



Images are for reference only

[Inquiry](#)

## General Description

Fabricated using the Silicon-Germanium (SiGe) BiCom-III process, the THS7314 is a low power single-supply 3-V to 5-V 3-channel integrated video buffer. It incorporates a 5th-order Butterworth filter which is useful as a DAC reconstruction filter or an ADC anti-aliasing filter. The 8.5-MHz filter is a perfect choice for SDTV video which includes Composite (CVBS), S-Video, Y'U'V', G'B'R' (R'G'B'), and Y'P'B'P'R 480i/576i.

As part of the THS7314 flexibility, the input can be configured for ac or dc coupled inputs. The 285-mV output level 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 CVBS, Y', and G'B'R' signals with sync. AC-coupled biasing for C'/P'B'P'R channels is achieved by adding an external resistor to Vs+.

The THS7314 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-lines, or 75- loads, allows for maximum flexibility as a video line driver. The 16-mA total quiescent current at 3.3-V makes it an excellent choice for USB powered, portable, or other power sensitive video applications.

The THS7314 is available in a small SOIC-8 package that is RoHS compliant.

## Key Features

3 SDTV Video Amplifiers for CVBS, S-Video, Y'P'BP'R 480i/576i, Y'U'V', or G'BR' (R'G'B')

Integrated Low-Pass Filters  
5th-Order 8.5-MHz (-3dB) Butterworth  
-1dB Passband Bandwidth at 7-MHz

47dB Attenuation at 27-MHz

Versatile Input Biasing  
DC-Coupled With 285-mV Output Shift

AC-Coupled with Sync-Tip Clamp

Allows AC-Coupled With DC-Biasing

Built-in 6dB 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

Able to Drive up to 2 Video Lines – 75  $\Omega$

Low 16-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

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### 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