

## Device Information

### HA-4741

[Printer Friendly Version](#)

#### Quad, 3.5MHz, Operational Amplifier

<a href="#">DS Datasheet &amp; Related Docs</a>	<a href="#">Description</a>	<a href="#">Key Features</a>	<a href="#">PT Parametric Data</a>	<a href="#">Related Devices</a>
---	-----------------------------	------------------------------	------------------------------------	---------------------------------

#### Ordering Information

Part No.	Status	Temp.	Package	MSL	
HA1-4741-2	Active	Mil	<a href="#">14 Ld CerDIP</a>	N/A	<a href="#">Buy</a>
HA3-4741-5	Active	Comm	<a href="#">14 Ld PDIP</a>	N/A	<a href="#">Buy</a>
HA1-4741-5	InActive	Comm	<a href="#">14 Ld CerDIP</a>	N/A	
HA9P4741-9	InActive	Ind	<a href="#">16 Ld SOIC</a>	1	

**The price listed is the manufacturer's suggested retail price for quantities between 100 and 999 units. However, prices in today's market are fluid and may change without notice.**

**MSL** = Moisture Sensitivity Level - per IPC/JEDEC J-STD-020

**SMD** = Standard Microcircuit Drawing

#### Description

HA-4741, which contains four amplifiers on a monolithic chip, provides a new measure of performance for general purpose operational amplifiers. Each amplifier in the HA-4741 has operating specifications that equal or exceed those of the 741-type amplifier in all categories of performance.

HA-4741 is well suited to applications requiring accurate signal processing by virtue of its low values of input offset voltage (0.5mV), input bias current (60nA) and input voltage noise (9nV/ $\sqrt{\text{Hz}}$  at 1kHz). 3.5MHz bandwidth, coupled with high open-loop gain, allow the HA-4741 to be used in designs requiring amplification of wide band signals, such as audio amplifiers. Audio application is further enhanced by the HA-4741's negligible output crossover distortion.

These excellent dynamic characteristics also make the HA-4741 ideal for a wide range of active filter designs. Performance integrity of multi-channel designs is assured by a high level of amplifier-to-amplifier isolation (69dB at 10kHz).

A wide range of supply voltages ( $\pm 2\text{V}$  to  $\pm 20\text{V}$ ) can be used to power the HA-4741, making it compatible with almost any system including battery-powered equipment. HA-4741/883 product and data sheets available upon request.

#### Key Features

- Slew Rate 1.6V/ $\mu\text{s}$
- Bandwidth 3.5MHz
- Input Voltage Noise 9nV/ $\sqrt{\text{Hz}}$
- Input Offset Voltage 0.5mV
- Input Bias Current 60nA
- Supply Range  $\pm 2\text{V}$  to  $\pm 20\text{V}$
- No Crossover Distortion
- Standard Quad Pinout

## Related Documentation

**DS** Datasheet(s):  
• [Quad, 3.5MHz, Operational Amplifier](#)

**TH** Technical Homepage:  
• [Op Amp Solutions](#)

## PT Parametric Data

# of Amps	4
Slew Rate (V/ $\mu$ s)	1.6
V <sub>S</sub> (min) (V)	$\pm 2$
V <sub>S</sub> (max) (V)	$\pm 20$
BW @ -3dB (MHz)	3.5
Rail-to-Rail	N
Gain A <sub>V</sub> (min) (V)	1
I <sub>S</sub> (per amp) (mA)	4.5
I <sub>BIAS</sub> ( $\mu$ A)	60
V <sub>OS</sub> (max) (mV)	.5
A <sub>VOL</sub> or A <sub>ZOL</sub> (dB or V/mA)	100
CMRR (dB)	95
PSRR (dB)	95

## Applications

- Universal Active Filters
- D3 Communications Filters
- Audio Amplifiers
- Battery-Powered Equipment

## Related Devices

**PT** [Parametric Table](#)

<a href="#">CA3130</a>	15MHz, BiMOS Operational Amplifier with MOSFET Input/CMOS Output
<a href="#">CA3130A</a>	15MHz, BiMOS Operational Amplifier with MOSFET Input/CMOS Output
<a href="#">CA3140</a>	4.5MHz, BiMOS Operational Amplifier with MOSFET Input/Bipolar Output
<a href="#">CA3140A</a>	4.5MHz, BiMOS Operational Amplifier with MOSFET Input/Bipolar Output
<a href="#">CA3240</a>	Dual, 4.5MHz, BiMOS Operational Amplifier with MOSFET Input/Bipolar Output
<a href="#">CA3240A</a>	Dual, 4.5MHz, BiMOS Operational Amplifier with MOSFET Input/Bipolar Output
<a href="#">CA3260</a>	4MHz, BiMOS Operational Amplifier with MOSFET Input/CMOS Output
<a href="#">CA3260A</a>	4MHz, BiMOS Operational Amplifier with MOSFET Input/CMOS Output
<a href="#">CA3420</a>	0.5MHz, Low Supply Voltage, Low Input Current BiMOS Operational Amplifiers
<a href="#">CA5260</a>	Dual 3MHz, BiMOS Microprocessor Operational Amplifiers with MOSFET Input/CMOS Output
<a href="#">CA5260A</a>	Dual 3MHz, BiMOS Microprocessor Operational Amplifiers with MOSFET Input/CMOS Output
<a href="#">CA5420A</a>	0.5MHz, Low Supply Voltage, Low Input Current BiMOS Operational Amplifiers
<a href="#">EL2044</a>	Low Power/Low Voltage 120MHz Unity-Gain Stable Operational Amplifier