

## 350MHz Rail-to-Rail Operational Amplifier

### PRODUCT DESCRIPTION

The MS809x is a rail-to-rail operational amplifier with easy use and low cost. It has many advantages of typical bandwidth and conversion rate derived from current feedback amplifier. In addition, it has wider common-mode input range and output swing, which makes it easy to operate in low voltage.

Even though it has low cost, the MS809x has perfect performance. It provides up to 350MHz ( $G=+1$ ) bandwidth and 0.1dB flatness bandwidth reaches 125MHz ( $G=+1$ ). And each amplifier only consumes 4.3mA current.

The features of low distortion and fast settling make the MS809x ideal for buffering high-speed ADC or DAC. The power-down feature can reduce the current consumption to 75 $\mu$ A. These features make the MS809x ideal for portable devices and battery-powered applications. The operating temperature ranges from -40°C to 125°C.

### FEATURES

- Rail-to-Rail Output
- 2mV Offset Voltage ( $V_{os}$ )
- High-speed  
-3dB Bandwidth: 350MHz ( $G = +1$ ); Slew Rate: 265 V/ $\mu$ s  
0.1% Settling Time: 32 ns
- Wide Power Supply: 2.5V to 5.5V
- Input Common-mode Voltage ( $V_s=5V$ ): -0.2V to +3.8V
- Video Characteristic ( $G=+2, R_L=150\Omega$ )  
0.1dB Gain Flatness: 70MHz
- Differential Gain Error: 0.004%, Differential Phase Error: 0.08°
- Low Power Dissipation: 4.3mA for Each Amplifier, Only 75 $\mu$ A at power-down

### APPLICATIONS

- Image
- Photodiode Preamplifier
- Professional Video Device and Photo Device
- Handhold Device
- DVD/CD
- Base Station
- Active Filter
- Analog-to-Digital Conversion

### PRODUCT SPECIFICATION

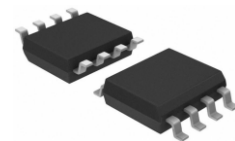
Part Number	Package	Marking
MS8091S	SOT23-5	8091S
MS8091	SOP8	MS8091
*MS8092	SOP8	MS8092
*MS8092M	MSOP8	MS8092M
MS8094	SOP14	MS8094
MS8094T	TSSOP14	MS8094T

\*The package is not available temporarily.

If necessary, please contact Hangzhou Ruimeng Sales Department Center.



SOT23-5



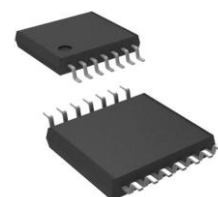
SOP8



MSOP8



SOP14



TSSOP14