

## Product Overview

### LMV358: Operational Amplifier, Low Power, Rail to Rail Output, CMOS Op-Amp

For complete documentation, see the data sheet.

The LMV321, LMV358, and LMV324 are single, dual, and quad low voltage op-amps with rail-to-rail output swing. These amplifiers are a cost-effective solution for applications where low power consumption and space saving packages are critical. Specification tables are provided for operation from power supply voltages at 2.7 V and 5 V. Rail-to-Rail operation allows for optimal signal-to-noise applications. Ultra low quiescent current makes this series of amplifiers ideal for portable, battery operated equipment. The common mode input range includes ground making the device useful for low-side current-shunt measurements. The ultra small packages allow for placement on the PCB in close proximity to the signal source thereby reducing noise pickup.

#### Features

- Operation from 2.7 V to 5.0 V Single-Sided Power Supply
- No Output Crossover Distortion
- Industrial temperature Range: -40C to +85C
- Rail-to-Rail Output
- Low Quiescent Current
- No Output Phase-Reversal from Overdriven Input

#### Applications

- Voltage regulation
- Sensor amplification or buffering

#### Benefits

- Compatible with the most common operating conditions
- Guarantees signal integrity
- Robust thermal performance
- Reduces supply requirements
- Improves battery life and power consumption
- Predictable system behavior

#### End Products

- Notebook PC
- Hard disk drives
- Routers and switches
- Other portables

### Part Electrical Specifications

Product	Compliance	Status	Rail to Rail	Channels	V <sub>S</sub> Min (V)	V <sub>S</sub> Max (V)	I <sub>Q</sub> Typ (mA)	V <sub>OS</sub> Max (mV)	GBW Typ (MHz)	SR Typ (V/μs)	I <sub>O</sub> Typ (mA)	ΔV <sub>OS</sub> /ΔT (μV/C)	e <sub>N</sub> (nV/√Hz)	I <sub>bias</sub> Typ (pA)	CMRR Typ (dB)	Architecture	Temperature Range (°C)	Package Type
LMV358DMR2G	Pb-free Halide free	Active	Output	2	2.5	5.5	0.07	9	1	1	160	5	50	<100 0	65	CMOS	-40 to 85	Micr o8™
LMV358DR2G	Pb-free Halide free	Active	Output	2	2.5	5.5	0.07	9	1	1	160	5	50	<100 0	65	CMOS	-40 to 85	SOI C-8
LMV358MUTAG	Pb-free Halide free	Active	Output	2	2.5	5.5	0.07	9	1	1	160	5	50	<100 0	65	CMOS	-40 to 85	UDF N-8

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