

LOOKING FOR PERFORMANCE AND VALUE-ADDED FEATURES IN YOUR OPAMPS?

TURN TO ST'S RAIL TO RAIL OPAMP PORTFOLIO

Don't compromise on your design features for cost reasons. From ultra-micropowered to high-speed and wide-band, ST's Rail to Rail Operational Amplifiers give you top performance at very accessible prices.

Our micro-powered Rail to Rails run on as little as 1.2µA – ideal for low-power, portable applications.

If you require a robust, high-speed, wide-band OpAmp, our TSH7x and 8x families offer input/output Rail to Rail solutions (with and without standby mode) up to 100 MHz*. In the mid-range, we have an array of Rail to Rail OpAmps that satisfy every design need: low noise, high precision, high output current, wide supply range, 1.8V supply, and full CMOS low power.

ST's top-class manufacturing abilities allow you to have the volumes you need, when you need them, at the best possible price.



*Next releases in the high speed families will offer 400MHz.

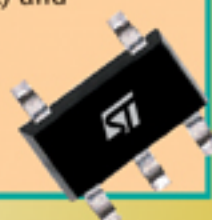
And as the world leader in ASSP/ASIC devices preferred by high-tech frontrunners, why not put our experience and competitiveness to work for you?



Flip-Chip samples of TS922 available starting November 2003

TSH7x Wide Band, Low Power OpAmp TSH8x Wide Band OpAmp with standby function

- Single, dual, triple or quad OpAmps (TSH7x)
- Single or dual OpAmps (TSH8x)
- 3V, 5V, ±5V specifications (TSH7x)
- 4.5V, ±5V specifications (TSH8x)
- Temperature range 0°C to 70°C (TSH7x) and -40°C to +85°C (TSH8x)
- 3dB-bandwidth: 100MHz (TSH8x) and 90 MHz (TSH7x)
- Slew-rate 100V/µs
- Optimized for 150Ω
- Output current up to 55mA



	Device	Standby	V _{CC} (V)	No. of Operators	I _{CC} typ.	GBP (MHz)	SR (V/µs)	Noise (nV/√Hz)	I _{OUT} typ. (mA)	Main Applications
High Speed	TSH8x	Yes	5 to 12	1/2	8 mA	100	100	11	+55/-33	Video, DVD, Set-top box
	TSH7x	Yes	3 to 12	1/2/3/4	8 mA	70	100	11	+55/-33	Video, DVD, Set-top box
Low Noise/ Precision	TS97x	No	2.7 to 12	1/2/4	2 mA	12	4	4	2	High performance audio
	TS46x	No	2.7 to 12	1/2/4	2 mA	10	4	4	2	Low voltage applications
High I _{OUT}	TS92x	No	2.7 to 12	1/2/4	1 mA	4	1.3	9	80	Headphones, piezoelectric speakers
	TS982	No	2 to 5.5	2	5 mA	2	0.7	17	200	Motor driver, Servo amplifier
Low Power/ CMOS	TS95x	No	2.7 to 12	1/2/4	900µA	3	1	25	22	Set-top box, Mobile PCs, PDAs
	TS902	Yes	2.7 to 16	2	200µA	0.8	0.5	30	40	Low power requiring CMOS inputs
	TS91x	No	2.7 to 16	2/4	200µA	0.8	0.4 to 0.5	30	40	Low power requiring CMOS inputs
1.8V Supply	TS187x	No	1.8 to 6	1/2/4	400µA	1.6	0.54	27	65	Mobile phones, audio driver
	TS185x	No	1.8 to 6	1/2/4	120µA	0.48	0.2	40	40	Portable electronic equipment
Micro Power	TS93x	No	2.7 to 10	1/2/4	20µA	0.1	0.05	75	2	Battery-powered systems
	TS94x	No	2.7 to 10	1/2/4	1.2µA	0.01	0.004	–	2	Battery-powered systems

Want more information on above devices? Go to www.st.com/stdics



Helping lead the way