

Micropower op amp and comparator solutions



ST's micropower op amp and comparator portfolio gives you the devices you need to build any application wherever power budget is a concern

ST's op amps enhance the signal chain by being the perfect companion chips for ST's microcontrollers and analog sensors.

Using innovative design techniques and close control of key parameters, ST offers many upgraded-performance versions of industry mainstream devices.

KEY BENEFITS

- The largest portfolio of micropower op amps
- An ever-increasing range of precision amplifiers
- Space-optimized solutions with tiny DFN, QFN and SC-70 packages
- State-of-the-art comparators including nanopower solutions

FUNCTIONS

- Small signal conditioning for sensors
- Active filtering
- Current monitoring
- Signal amplification for ADC/DAC
- Threshold detection

APPLICATIONS

- Handheld devices
- Medical instrumentation
- Security systems
- Test and measurement equipment
- Factory automation
- LED Lighting
- Optical modules
- White goods

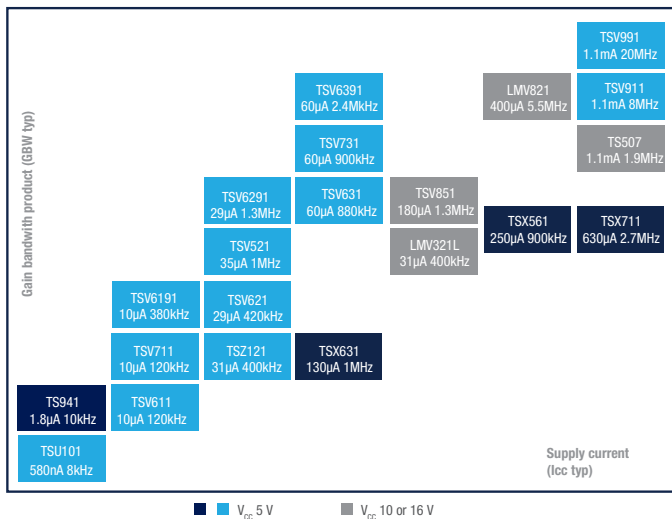


SELECTION OF ST'S MICROPOWER AMPLIFIERS AND COMPARATORS

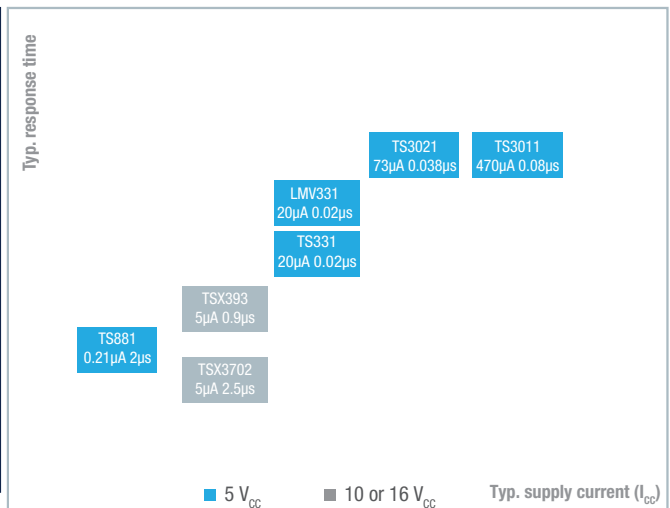
Micropower amplifiers	Description	Package	Max. supply current per channel (µA)	Operating voltage (V)	Max. input offset voltage (mV)	Typ. gain bandwidth (kHz)
TSU101	Nanopower 5 V CMOS	SC70-5 SOT23-5	0.75	1.5 to 5.5	3	8
TS941A	Ultra-micropower amplifier with CMOS inputs	SOT23-5	1.85	2.5 to 10	5	10
TSV611A	Rail-to-rail input/output 5 V CMOS	SC70-5 SOT23-5	12	1.5 to 5.5	0.8	120
TSV711	High accuracy ($V_{io} < 200 \mu V$) Micropower (10 µA) 5 V CMOS	SC70-5	14	1.5 to 5.5	0.2	120
TSV621A	Micropower 5 V CMOS	SC70-5 SOT23-5	36	1.5 to 5.5	0.8	420
TSZ121	Very high accuracy (5 µV) zero drift micropower 5 V	SC70-5 SOT23-5	40	1.8 to 5.5	0.005	400
TSV521A	High merit factor (1.15 MHz for 45 µA) 5 V CMOS	SC70-5	60	2.7 to 5.5	0.6	1150
TSX631A	Micropower, rail-to-rail 16 V CMOS	SOT23-5	60	3.3 to 16	0.5	200
TSV631A	Micropower 5 V CMOS	SC70-5 SOT23-5	69	1.5 to 5.5	0.5	880
TSV731	High accuracy ($V_{io} < 200 \mu V$) micropower (60 µA) 5 V CMOS	SC70-5	70	1.5 to 5.5	0.2	900
TSV851A	Low-power, high accuracy, general purpose	SC70-5 SOT23-5	180	2.5 to 5.5	0.8	1300
LMV321L	Low-power, general purpose	SC70-5 SOT23-5	350	2.7 to 5.5	7	1000
TSX561A	Micropower, wide bandwidth 16 V CMOS	SOT23-5	360	3 to 16	0.6	900

Micropower Comparators	Description	Package	Typ. supply current per channel (µA)	Operating voltage (V)	Typ. response time (µs)	Output configuration
TS881	Rail-to-rail 0.9 V nanopower	SC70-5 SOT23-5	0.21	1.1 to 5.5	2	Push Pull
TSX3702	Micropower 16 V dual CMOS	DFN8 2 x 2 MiniS08 S0-8 TSSOP-8	5	2.7 to 16	2.5	Push Pull
TSX393	Micropower 16 V CMOS dual	DFN8 2 x 2 MiniS08 S0-8 TSSOP-8	5	2.7 to 16	0.9	Open Drain
LMV331	General purpose low-voltage	SC70-5 SOT23-5	20	2.7 to 5	0.2	Open Drain
TS331	Micropower low-voltage rail-to-rail	DFN6 1.2 x 1.3 SC70-5 SOT23-5	20	1.6 to 5	0.2	Open Drain
TS3021	Rail-to-Rail 1.8 V high-speed micropower	SC70-5 SOT23-5	73	1.8 to 5.5	0.038	Push Pull

Op amp micropowers portfolio



Comparators portfolio



Only single version of each op amp is shown, check www.st.com for dual and quad version.



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