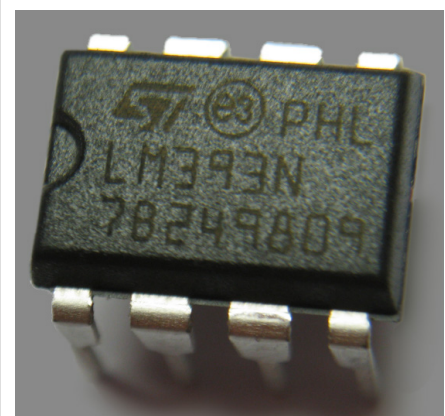


List of LM-series integrated circuits

The following is a **list of LM-series integrated circuits**. Many were among the first analog integrated circuits commercially produced; some were groundbreaking innovations, and many are still being used. The LM series originated with integrated circuits made by National Semiconductor. The prefix LM stands for *linear monolithic*, referring to the analog components integrated onto a single piece of silicon. Because of the popularity of these parts, many of them were second-sourced by other manufacturers who kept the sequence number as an aid to identification of compatible parts. Several generations of pin-compatible descendants of the original parts have since become *de-facto* standard electronic components.



LM393 differential comparator manufactured by STMicroelectronics

Operational amplifiers

Part number	Predecessor	Obsolete?	Description
LM10			Op-amp with an adjustable voltage reference
LM101 LM201 LM301	μ A709		General purpose Op-amp with external compensation
LM107 LM207 LM307	μ A709	Yes	General purpose Op-amp
LM108 LM208 LM308		Yes	Precision Op-amp
LM112 LM212 LM312		Yes	Micropower Op-amp with external compensation
LM118 LM218 LM318			Precision, fast general purpose Op-amp with external compensation
LM321			Low power Op-amp
LM124 LM224 LM324 LM2902			Quadruple wide supply range Op-amps
LM146 LM346		only LM146	Programmable quadruple Op-amps
LM148 LM248 LM348			General purpose quadruple Op-amps

LM158 LM258 LM358 LM2904			Low power, wide supply range dual Op-amps
LM392			Low power dual Op-amps and comparator
LM432	LM358, LMV431		Dual Op-amps with fixed 2.5V reference
LM611			Op-amp with an adjustable voltage reference
LM614			Quadruple Op-amps with an adjustable voltage reference
LM675			Power Op-amp with a maximal current output of 3 amps
LM709		Yes	General purpose Op-amp
LM741	LM709		General purpose Op-amp
LM748			General purpose Op-amp with external compensation
LM837			Low noise quadruple Op-amps

Differential comparators

Part number	Predecessor	Obsolete?	Description
LM306			High speed differential comparator with strobos
LM111 LM211 LM311	LM106 LM710		High speed differential comparator with strobos
LM119 LM219 LM319	LM711(?)		High speed dual comparators
LM139 LM239 LM339 LM2901			Quadruple wide supply range comparators
LM160 LM360	μ A760		High speed comparator with complementary TTL outputs
LM161 LM361		only LM161	High speed comparator with strobed complementary TTL outputs
LM193 LM293 LM393 LM2903			Dual wide supply range comparators
LM397			General purpose comparator with an input common mode
LM613			Dual Op-amps, dual comparators and adjustable reference

Current-mode amplifiers

Part number	Predecessor	Obsolete?	Description
LM359			Dual, high speed, programmable current mode amplifiers

Instrumentation amplifiers

Part number	Predecessor	Obsolete?	Description
LM363		Yes	Precision instrumentation amplifier

Audio amplifiers

Part number	Predecessor	Obsolete?	Description
LM380			2.5W audio power amplifier (fixed 34dB gain)
LM384			5W audio power amplifier (fixed 34dB gain)
LM386			Low voltage audio power amplifier
LM833			Dual high speed audio amplifiers

Precision reference

Part number	Predecessor	Obsolete?	Description
LM113 LM313		only LM313	Temperature compensated Zener reference diode, 1.22V breakdown voltage
LM329			Temperature compensated Zener reference diode, 6.9V breakdown voltage
LM136 LM236 LM336			2.5V or 5V Zener reference diode with temperature coefficient trimmer
LM368		Yes	2.5V precision voltage reference
LM169 LM369	LM199	Yes	2.5V temperature compensated precision voltage reference
LM185 LM285 LM385			Fixed (1.2V, 2.5V) or adjustable micropower voltage reference
LM199 LM299 LM399		Yes	Fixed (6.95V) voltage reference
LM431			Adjustable precision Zener shunt regulator (2.5V-36V)

Voltage regulators

Part number	Predecessor	Obsolete?	Description
LM105 LM305	LM100	Yes	Adjustable positive voltage regulator (4.5V-40V)
LM109 LM309			5-Volt regulator (up to 1A)
LM117 LM317			Adjustable 1.5A positive voltage regulator (1.25V-37V)
LM120 LM320			Fixed 1.5A negative voltage regulator (-5V,-12V,-15V)
LM123 LM323			Fixed 3A, 5-Volt positive voltage regulator
LM325		Yes	Dual \pm 15-Volt voltage regulator
LM330			5-Volt positive voltage regulator, 0.6V input-output difference
LM333		Yes	Adjustable 3A negative voltage regulator (-1.2V to -32V)
LM237 LM337			Adjustable 1.5A negative voltage regulator (-1.2V to -37V)
LM138 LM338			Adjustable 5A voltage regulator (1.2V-32V)
LM140 LM340	LM78xx		1A positive voltage regulator (5V, 12V, 15V), can be adjustable
LM341 LM78Mxx			0.5A protected positive voltage regulators (5V, 12V, 15V)
LM145 LM345		Yes	Fixed 3A, -5-Volt negative voltage regulator
LM150 LM350		only LM150	Adjustable 3A, positive voltage regulator (1.2V-33V)
LM78xx		Yes	Fixed 1A positive voltage regulators (5V-24V)

Voltage-to-frequency converters

Part number	Predecessor	Obsolete?	Description
LM231 LM331			Precision voltage-to-frequency converter (1kHz-100kHz)

Current sources

Part number	Predecessor	Obsolete?	Description
LM134 LM234 LM334			Adjustable current source (1 μ A-10mA)

Temperature sensors and thermostats

Part number	Predecessor	Obsolete?	Description
LM19			Temperature sensor, 2.5°C accuracy
LM20			Temperature sensor, 1.5°C accuracy
LM26			Factory preset thermostat, 3°C accuracy
LM27			Factory preset thermostat (120°C-150°C), 3°C accuracy
LM34			Precision Fahrenheit temperature sensor, 0.5°F accuracy
LM35			Precision Centigrade temperature sensor, 0.25°C accuracy
LM45			Precision Centigrade temperature sensor, 2°C accuracy
LM50			Single supply Centigrade temperature sensor, 2°C accuracy
LM56			Dual output low power thermostat, resistor programmable
LM56			Dual output resistor programmable thermostat with analog temperature sensor
LM60 LM61 LM62			Single supply Centigrade temperature sensors (The difference between the components is the voltage scale)
LM135 LM235 LM335			Precision Zener temperature sensor, 1°C accuracy

Notes

- Suffixes that denote specific versions of the part (e.g. LM305 vs. LM305A) are not shown in this list.
- The first digit of each part denote different temperature ranges. Mostly, **LM1xx** indicates military-grade temperature range of -55° to +125°C, **LM2xx** indicates industrial-grade temperature range of -25° to +85°C and **LM3xx** indicates temperature range of 0° to 70°C.
- Some of the obsolete parts are continued to be manufactured by different companies other than the original manufacturer, e.g. Fairchild Semiconductor.

References

Article Sources and Contributors

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