

# CROSS REFERENCE GUIDE

## Single Operational Amplifiers

<sup>A</sup> NEC ORIGINAL  
 • FUNCTIONAL EQUIVALENT

Function	NEC	FAIRCHILD	NATIONAL	MOTOROLA	TEXAS
General Purpose Operational Amplifier	$\mu\text{PC}741\text{C}$ $\mu\text{PC}741\text{G}$	$\mu\text{A}741\text{TC}$	LM741CN	MC1741CP1	$\mu\text{A}741\text{CP}$
J-FET Input Low-Offset Operational Amplifier	$\mu\text{PC}811\text{C}$ $\mu\text{PC}811\text{G}$		LF411N	MC34001AP MC34001AD	
J-FET Input Low-Offset Operational Amplifier	$\mu\text{PC}813\text{C}^{\Delta}$ $\mu\text{PC}813\text{G}^{\Delta}$				
Ultra Low-Offset Voltage, Low Drift, Low Noise, High Slew Rate, Wideband Operational Amplifier	$\mu\text{PC}815\text{C}^{\Delta}$ $\mu\text{PC}816\text{C}^{\Delta}$		LINEAR TECHNOLOGY LT1007N8* LINEAR TECHNOLOGY LT1037N8*		
J-FET Input Low-Power Operational Amplifier	$\mu\text{PC}4061\text{C}$ $\mu\text{PC}4061\text{G}$		LF441N		TL061CP
Low Noise J-FET Input Operational Amplifier	$\mu\text{PC}4071\text{C}$ $\mu\text{PC}4071\text{G}$		LF351N* LF351M*	TL071CP TL071CD	TL071CP
J-FET Input Operational Amplifier	$\mu\text{PC}4081\text{C}$ $\mu\text{PC}4081\text{G}$	$\mu\text{AF}771\text{LTC}^{\bullet}$	LF351N*	TL081CP TL081CD	TL082CP
Programmable Operational Amplifier	$\mu\text{PC}4250\text{C}$ $\mu\text{PC}4250\text{G}$		LM4250CN		

## Dual Operational Amplifiers

Function	NEC	FAIRCHILD	NATIONAL	MOTOROLA	TEXAS
Low Power Operational Amplifier	$\mu\text{PC}358\text{C}$ $\mu\text{PC}358\text{G}$ $\mu\text{PC}358\text{HA}$		LM358N LM358M	LM358N LM358D	LM358N
J-FET Input Low-Offset Operational Amplifier	$\mu\text{PC}812\text{C}$ $\mu\text{PC}812\text{G}$		LF412N	MC34002AP MC34002AD	
J-FET Input Low-Offset Operational Amplifier	$\mu\text{PC}814\text{C}^{\Delta}$ $\mu\text{PC}814\text{G}^{\Delta}$				
Single Supply Voltage, High Speed, Wideband, Operational Amplifier	$\mu\text{PC}842\text{C}^{\Delta}$ $\mu\text{PC}842\text{G}^{\Delta}$			MC34072P* MC34072D*	
General Purpose Operational Amplifier	$\mu\text{PC}1458\text{C}$ $\mu\text{PC}1458\text{G}$	$\mu\text{A}1458\text{TC}$	LM1458N LM1458M	MC1458CP MC1458CD	MC1458P
J-FET Input Low-Power Operational Amplifier	$\mu\text{PC}4062\text{C}$ $\mu\text{PC}4062\text{G}$		LF442N		TL062CP
Low Noise J-FET Input Operational Amplifier	$\mu\text{PC}4072\text{C}$ $\mu\text{PC}4072\text{G}$ $\mu\text{PC}4072\text{HA}$		LF353N LF353M	TL072CP TL072D	TL072CP
J-FET Input Operational Amplifier	$\mu\text{PC}4082\text{C}$ $\mu\text{PC}4082\text{G}$	$\mu\text{AF}772\text{LTC}^{\bullet}$	LF353N* LF353M*	TL082CP TL082D	TL082CP
High Performance Decompensated Operational Amplifier	$\mu\text{PC}4556\text{C}^{\Delta}$ $\mu\text{PC}4556\text{G}^{\Delta}$				
High Performance Operational Amplifier	$\mu\text{PC}4558\text{C}$ $\mu\text{PC}4558\text{G}$	$\mu\text{A}4558\text{TC}$		MC4558CP1 MC4558CD	RC4558P MC4558CD
High Performance Operational Amplifier	$\mu\text{PC}4559\text{C}$			Raytheon RC4559NB	
High Performance Operational Amplifier	$\mu\text{PC}4560\text{C}$ $\mu\text{PC}4560\text{G}$				
Ultra Low-Noise, Wideband Operational Amplifier	$\mu\text{PC}4570\text{C}$ $\mu\text{PC}4570\text{G}$ $\mu\text{PC}4570\text{HA}$				NE5532P
Low Supply Voltage Ultra Low-Noise, High Speed, Wideband, Low Is Operational Amplifier	$\mu\text{PC}4572\text{C}^{\Delta}$ $\mu\text{PC}4572\text{G}^{\Delta}$ $\mu\text{PC}4572\text{HA}^{\Delta}$				

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## Quad Operational Amplifiers

Function	NEC	FAIRCHILD	NATIONAL	MOTOROLA	TEXAS
Low Power Operational Amplifier	$\mu\text{PC}324\text{C}$ $\mu\text{PC}324\text{G}$	$\mu\text{A}324\text{PC}$	LM324N LM324M	LM324N	LM324N
Single Supply Voltage, High Speed, Wide Band Operational Amplifier	$\mu\text{PC}844\text{C}^\Delta$ $\mu\text{PC}844\text{G}^\Delta$			MC34074P*	MC34074D*
High Performance Operational Amplifier	$\mu\text{PC}3403\text{C}$ $\mu\text{PC}3403\text{G}$	$\mu\text{A}3403\text{PC}$	LM3403N LM3403M	MC3403P MC3403D	MC3403N
J-FET Input Low-Power Operational Amplifier	$\mu\text{PC}4064\text{C}$ $\mu\text{PC}4064\text{G}$		LF444N		TL064CP
Low Noise J-FET Input Operational Amplifier	$\mu\text{PC}4074\text{C}$ $\mu\text{PC}4074\text{G}$		LF347N LF347F	TL074CN TL074CD	TL074CP
J-FET Input Operational Amplifier	$\mu\text{PC}4084\text{C}$	$\mu\text{A}F774\text{LTC}^*$	LF347N*	TL084CN	TL084CP
Ultra Low-Noise, Wideband Operational Amplifier	$\mu\text{PC}4574\text{C}^\Delta$ $\mu\text{PC}4574\text{G}^\Delta$				
High Performance Operational Amplifier	$\mu\text{PC}4741\text{C}$ $\mu\text{PC}4741\text{G}$		(HARRIS HA4741-S)		

## Voltage Comparators

Function	NEC	FAIRCHILD	NATIONAL	MOTOROLA	TEXAS
Precision Voltage Comparator (Single)	$\mu\text{PC}311\text{C}$ $\mu\text{PC}311\text{G}$	$\mu\text{A}311\text{T}$	LM311N LM311M	LM311N LM311D	LM311JG LM311P
High Speed Cmparator (Dual)	$\mu\text{PC}319\text{C}$ $\mu\text{PC}319\text{G}$		LM319N		
Low Power Comparator (Quad)	$\mu\text{PC}339\text{C}$ $\mu\text{PC}339\text{G}$	$\mu\text{A}339\text{PC}$	LM339N LM339M	LM339N LM339D	LM339N
Low Power Comparator (Dual)	$\mu\text{PC}393\text{C}$ $\mu\text{PC}393\text{G}$ $\mu\text{PC}393\text{HA}$	$\mu\text{A}393\text{TC}$	LM393N LM393M	LM393N LM393D	LM393P

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## Voltage Regulators - Three Terminal Positive Regulators

Function		NEC	FAIRCHILD	NATIONAL	MOTOROLA	TEXAS
0.1 A	+5 V	$\mu$ PC78L05J/T	$\mu$ A78L05AWC	LM78L05ACZ	MC78L05CP	$\mu$ A78L05CLP
	+6 V	$\mu$ PC78L06J/T				$\mu$ A78L06CLP
	+7 V	$\mu$ PC78L07J/T				
	+8 V	$\mu$ PC78L08J/T		LM78L08ACZ	MC78L08CP	$\mu$ A78L08CLP
	+10 V	$\mu$ PC78L10J/T				$\mu$ A78L10CLP
	+12 V	$\mu$ PC78L12J/T			MC78L12CP	$\mu$ A78L12CLP
	+15 V	$\mu$ PC78L15J/T			MC78L15CP	$\mu$ A78L15CLP
0.3 A	+5 V	$\mu$ PC78N05H		Matsusita AN78N05		
	+8 V	$\mu$ PC78N08H		Matsusita AN78N08		
	+10 V	$\mu$ PC78N10H		Matsusita AN78N10		
	+12 V	$\mu$ PC78N12H		Matsusita AN78N12		
	+15 V	$\mu$ PC78N15H		Matsusita AN78N15		
	+18 V	$\mu$ PC78N18H		Matsusita AN78N18		
	+24 V	$\mu$ PC78N24H		Matsusita AN78N24		
0.5 A	+5 V	$\mu$ PC78M05AHF	$\mu$ A78M05UC	LM341P-5	MC78M05CT	$\mu$ A78M05CKC
	+8 V	$\mu$ PC78M08AHF		LM341P-8	MC78M08CT	$\mu$ A78M08CKC
	+10 V	$\mu$ PC78M10AHF				$\mu$ A78M10CKC
	+12 V	$\mu$ PC78M12AHF		LM341P-12	MC78M12CT	$\mu$ A78M12CKC
	+15 V	$\mu$ PC78M15AHF		LM341P-15	MC78M15CT	$\mu$ A78M15CKC
	+18 V	$\mu$ PC78M18AHF		LM341P-18	MC78M18CT	$\mu$ A78M18CKC
	+24 V	$\mu$ PC78M24AHF		LM341P-24	MC78M24CT	$\mu$ A78M24CKC
1.0A	+5 V	$\mu$ PC7805AHF	$\mu$ A7805UC	LM340T-5	MC7805CT	$\mu$ A7805CKC
	+8 V	$\mu$ PC7808AHF		LM340T-8	MC7808CT	$\mu$ A7808CKC
	+9.3 V	$\mu$ PC7893AHF				
	+12 V	$\mu$ PC7812AHF		LM340T-12	MC7812CT	$\mu$ A7812CKC
	+15 V	$\mu$ PC7815AHF		LM340T-15	MC7815CT	$\mu$ A7815CKC
	+18 V	$\mu$ PC7818AHF		LM340T-18	MC7818CT	$\mu$ A7818CKC
	+24 V	$\mu$ PC7824AHF		LM340T-24	MC7824CT	$\mu$ A7824CKC

## Voltage Regulators - Three Terminal Negative Regulators

Function		NEC	FAIRCHILD	NATIONAL	MOTOROLA	TEXAS
0.1 A	-5 V	$\mu$ PC79L05J		LM79L05ACZ	MC79L05CP	MC79L05CLP
	-8 V	$\mu$ PC79L08J				
	-12 V	$\mu$ PC79L12J		LM79L12ACZ	MC79L12CP	MC79L12CLP
	-15 V	$\mu$ PC79L15J			MC79L15CP	MC79L15CLP
0.3 A	-5 V	$\mu$ PC79N05H		Matsusita AN79N05		
	-8 V	$\mu$ PC79N08H		Matsusita AN79N08		
	-12 V	$\mu$ PC79N12H		Matsusita AN79N12		
	-15 V	$\mu$ PC79N15H		Matsusita AN79N15		
	-18 V	$\mu$ PC79N18H		Matsusita AN79N18		
	-24 V	$\mu$ PC79N24H		Matsusita AN79N24		
0.5 A	-5 V	$\mu$ PC79M05H/HF	$\mu$ A79M05UC	LM79M05CP	MC79M05CT	$\mu$ A79M05CKC
	-8 V	$\mu$ PC79M08H/HF		LM79M08UC	MC79M12CT	$\mu$ A79M08CKC
	-12 V	$\mu$ PC79M12H/HF		LM79M12UC	MC79M15CT	$\mu$ A79M12CKC
	-15 V	$\mu$ PC79M15H/HF		LM79M15UC		$\mu$ A79M15CKC
	-18 V	$\mu$ PC79M18H/HF				
	-24 V	$\mu$ PC79M24H/HF				$\mu$ A79M24CKC
1.0 A	-5 V	$\mu$ PC7905AHF	$\mu$ A7905UC	LM320T-5	MC7905CT	$\mu$ A7905CKC
	-8 V	$\mu$ PC7908AHF		LM320T-8	MC7908CT	$\mu$ A7908CKC
	-12 V	$\mu$ PC7912AHF		LM320T-12	MC7912CT	$\mu$ A7912CKC
	-15 V	$\mu$ PC7915AHF		LM320T-15	MC7915CT	$\mu$ A7915CKC
	-18 V	$\mu$ PC7918AHF		LM320T-18	MC7918CT	$\mu$ A7918CKC
	-24 V	$\mu$ PC7924AHF		LM320T-24	MC7924CT	$\mu$ A7924CKC

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## Voltage Regulators - Three Terminal Adjustable Regulators

Function		NEC	FAIRCHILD	NATIONAL	MOTOROLA	TEXAS
1.3 to 30 Volt, Variable	1.5 A	$\mu$ PC317H	$\mu$ A317UC	LM317T	LM317T	LM317KC
-1.3 to -30 Volt, Variable	1.5 A	$\mu$ PC337H		LM337T	LM337T	LM337KC
Adjustable Precision Shunt Regulator		$\mu$ PC1093J $\mu$ PC1093G		LM336		TL431LP

## Voltage Regulators - Switching Regulator Control Circuits

Function		NEC	FAIRCHILD	NATIONAL	MOTOROLA	TEXAS
Switching Regulator Control Circuit	$\mu$ PC494C $\mu$ PC494G, GS	$\mu$ A494PC			TL494IN	TL494
Switching Regulator Control Circuit for 500 kHz Operation	$\mu$ PC1094CA $\mu$ PC1094GA $\mu$ PC1099CX <sup>A</sup> $\mu$ PC1099GS <sup>A</sup> $\mu$ PC1900CS <sup>A</sup> $\mu$ PC1900GS <sup>A</sup> $\mu$ PC1905CX <sup>A</sup> $\mu$ PC1905GS <sup>A</sup> $\mu$ PC1906CX <sup>A</sup> $\mu$ PC1906GS <sup>A</sup>					
Dual Switching Regulator Control Circuit	$\mu$ PC1100C $\mu$ PC1100GS					TL1451*
Dual Switching Regulator Control Circuit	$\mu$ PC1150CA <sup>A</sup> $\mu$ PC1150GS <sup>A</sup>					

## Functional Blocks

Function		NEC	FAIRCHILD	NATIONAL	MOTOROLA	TEXAS
Precision Voltage Reference	$\mu$ PC1060C $\mu$ PC1060D				MC1403CP	
Precision Timer Circuit	$\mu$ PC1555C $\mu$ PC1555G	$\mu$ A555TC		LM555CN	MC1455CP1	NE555P
CMOS Timer Circuit	$\mu$ PD5555C $\mu$ PD5555G				INTERSIL ICM7555CP	
Dual CMOS Timer Circuit	$\mu$ PD5556C $\mu$ PD5556G				INTERSIL ICM7556CP	
CMOS Analog Multiplexer	$\mu$ PD5205CA <sup>A</sup> $\mu$ PDS205G <sup>A</sup>					