



OPERATIONAL AMPLIFIER CROSS REFERENCE

■ Bipolar

NJRC		Equivalent Products by Other Companies									
Functions	Type No.	N-S	T-I	Mitsubishi	NEC	Hitachi	Toshiba	Matsushita	Other		
Single Supply Type	Quad	NJM2902N NJM2902M NJM3403AD NJM3405AM NJM324D NJM324M	LM2902N LM324N	LM2902N LM2902NS MC3403N MC3403NS LM324N LM324NS	M5224P M5224FP M5224P M5224FP	μPC451C μPC451G μPC452C μPC3403C μPC452C μPC3403C μPC324C μPC451G MPC451G	HA17902P (LA6324) (LA6324M) (LA6324) (LA6324M)	TA75902P TA75902F TA75403P TA75403F TA75324P	AN1324 (AN6564) AN1324NS AN1324 (AN6564) AN1324S	BA1324 BA10324 BA6924 BA10324F	
	Dual	NJM2143R NJM2904D NJM2904M NJM2904AL NJM3404AD NJM3404AM NJM3404AL NJM3414AD NJM3414AM NJM3414AL NJM2132D NJM2132M NJM2132L NJM2132V	LM2904N LM358N	LN2904P LM358P LM2904PS	M5223P LM5223FP (M5223L)	μPC1251C μPC358C μPC1251G μPC358G	HA17904PS (LA6358) (LA6358M) (LA6358S)	TA75W01FU TA75358P TA75358S	AN1358 (AN6562) AN1358S AN6561 AN6568 AN6568S	BA10358 BA728 BA10358F BA728F BA718 MC33172P MC33172D	
Input/Output Full Swing	Single	NJM2730F	LMV921M5	TLV2781DBV						MAX4291EUK-T	
Trans conductance	Dual	NJM13600D NJM13600M NJM13700D NJM13700M		LM13600N LM13600NS LM13700N LM13700NS						BA13600	
Low Noise	Dual	NJM2040D NJM2040M NJM2040L NJM2043D NJM2043M NJM2043L NJM4560D NJM4560M NJM4560L NJM4565D NJM4565M NJM4565L NJM4562D NJM4562M NJM4562L NJM4580D NJM4580E NJM45532D NJM45532M NJM45532L NJM2068D NJM2068M NJM2068L	LM833N	NE5532P NE5532PS	M5220P (M5210P) M5220FP (M5210FP) (M5220L) M5260P (M5218P) M5260FP (M5218FP) (M5260L) M5260P (M5218P) M5260FP (M5218FP) (M5260L) M5219P M5209P M5219FP M5209FP (M5219)L (M5209)L	μPC259C μPC4560C μPC259G μPC4560G μPC259C μPC4560C μPC259G μPC4560G μPC4556C μPC4556G μPC4572C μPC4572G	(LA6462D) (LA6462M) (LA6462S)	AN6558 AN6557	BA4560 (BA15218) BA4560F (BA15218F)		
		Single			NJM45534D NJM45534M	NE5534P NE5534PS					BA15534
		Quad			NJM2060D NJM2060M						
	Low consumption	Single	NJM4250D NJM4250M	LM4250CN			μPC802C μPC4250C μPC802G μPC4250G	(TA7540P)	AN4250 AN4250S		
High Speed	Single	NJM318D NJM318M	LM318N	LM318P LM318PS		μPC159C μPC318C					
General	Quad	NJM2058D NJM2058M NJM2059D NJM2059M NJM4741D NJM4741M			M5228P M5228FP M5228P M5228FP	μPC458C μPC4741C μPC458G μPC4741G μPC458C μPC4741C μPC458G μPC4741G	TA7508P TA7508F	AN6554 AN6554NS AN6554 AN6554NS	BA14741 BA14741F		
		Hex	NJUM2097M								

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NJRC		Equivalent Products by Other Companies								
Functions	Type No.	N-S	T-I	Mitsubishi	NEC	Hitachi	Toshiba	Matsushita	Other	
High Output Current	Dual	NJM4556AD NJM4556AM NJM4556AL NJM4556AV NJM2141R			M5216P M5216FP (M5216L)			TA75W558FU		
General	Dual	NJM4558D NJM4558M NJM4558L NJM4559D NJM4559M NJM4559L NJM1458D NJM1458M	LM1458N	RC4558P RC4558PS MC1458P MC1458PS	M5218P M5218FP (M5218L)	 μPC258C μPC4558C μPC258G μPC4558G μPC4559C μPC251C μPC1458C μPC251G μPC1458G	(LA6458D) (LA6458M) HA17458PS	TA75558P TA75558F TA7558S TA75559P TA75559F TA75559S TA75458P TA75458F	AN6552 AN4558 AN4558S AN6551 AN6556 AN6553 AN6556S AN6555 AN1458 (AN6572) AN1458S	BA714558 IR94558 BA44558S IR94558N IR94559 IR94559N IR91458 (Sharp)
	Single	NJM741D NJM741M	LM741CN	μA741CP μA741CPS		μPC151C μPC741C μPC151G μPC741G	HA17741PS	TA7504P AN1741 (AN6570) AN1741S	IR3741 (Sharp)	
J-FET Input	Quad	NJM064D NJM064M NJM084D NJM084M NJM074D NJM074M NJM2164D NJM2164M NJM2164V	LF347N	TL064CN TL064CNS TL084CN TL084CNS TL074CN TL074CNS		μPC834C μPC4064C μPC834G μPC4064G μPC804C μPC4084C μPC804G μPC4084G μPC824C μPC4074C μPC824G μPC4074G	HA17084PS	TA75064P TA75064F TA75074P TA7504F		
	Dual	NJM082BD NJM082BM NJM082BL NJM072BD NJM072BM NJM072BL NJM062D NJM062M NJM062L NJM353D NJM353M NJM2082D NJM2082M NJM2082L	LF353N	TL082CP TL082CPS TL072CP TL072CPS TL062CP TL062CPS	M5221P M5221FP (M5221L) M5221P M5221FP	μPC803C μPC4082C μPC803G μPC4082G μPC822C μPC4072C μPC822G μPC4072G μPC832C μPC4062C μPC832G μPC4062G	HA17082PS (LA6082D) (LA6082M) (LA6082S)	AN1082 AN1082S AN6581	BA082 (ROHM)	
Low Power	Dual	NJM022D NJM022M		TL022CP TL022CPS					IR9022 IR9022N	
Precision	Single	NJMOP-07D NJMOP-07M		OP-07CP OP-07CP OP-07CPS OP-07DPS		μPC345D				
	Dual	NJM2119D NJM2119M		OPA1013CN8 OPA1013DN8 TLE2022CP TLE2022CD						
2Input 1Output	Single	NJM2120D NJM2120M NJM2120L NJM2121D NJM2121M NJM2121L			M5201P M5201FP M5201L M5203P M5203FP M5203L					
	Dual	NJM2123D NJM2123M NJM2123V								
High Speed Wide Band	Single	NJM2136M NJM2136V NJM2711F NJM2712RB1 NJM2716F	LMH6654MF LMH6655MN							
	Dual	NJM2137M NJM2137V NJM2712M	LMH6655MA							
	Quad	NJM2138M NJM2138V								
	Hex	NJM2116M NJM2116V NJM2710M NJM2710V								

OPERATIONAL AMPLIFIER CROSS REFERENCE

■ C-MOS

NJRC		Equivalent Products by Other Companies					
Functions	Type No.	N-S	T-I	SGS-THOMSON	HARRIS(INTERSIL)	Motorola	MAXIM
Low Voltage Operation	Single	NJU7001 NJU7007 NJU7008 NJU7012 NJU7013 NJU7021 NJU7031	LMV321 LMV321 LMV321 LMV321	TLC271C(L) ^{*1}	TS271C(L)	ICL76L1C	
				TLC271C(M) ^{*1} TLC271C(H) ^{*1}	TS271C(M) TS271C(H)	ICL76M1C ICL761C	MC14573 ^{*3} MC14573 ^{*3}
	Dual	NJU7002 NJU7015 NJU7018 NJU7022 NJU7032	LMV358 LMV358 LMC662C ^{*2} LMC662C ^{*2}	TLC27L2C	TS27L2C	ICL76L2C	
			TLC27M2C TLC272C	TS27M2C TS272C	ICL76M2C ICL762C	MC14573 ^{*3} MC14573 ^{*3}	
	Quad	NJU7004 NJU7024 NJU7034	LMC660C ^{*2} LMC660C ^{*2}	TLC27L4C TLC27M4C TLC274C	TS27L4C TS27M4C TS274C	ICL76L4C ICL76M4C ICL764C	MC14573 ^{*3} MC14573 ^{*3}
Low Voltage Operation & Input/Output Full Swing	Single	NJU7042	LMC7111				MAX4040
Low Voltage Operaiton & High Precision	Single	NJU7051 NJU7061 NJU7071		TLC271BC(L) ^{*1} TLC271BC(M) ^{*1} TLC271BC(H) ^{*1}	TS271BC(L) TS271BC(M) TS271BC(H)	ICL76L1A ICL76M1A ICL761A	
	Dual	NJU7052 NJU7062 NJU7072	LMC662AI ^{*4} LMC662AI ^{*4}	TLC27L2BC TLC27M2BC TLC272BC	TS27L2BC TS27M2BC TS272BC	ICL76L2A ICL7676M2A ICL762A	
	Quad	NJU7054 NJU7064 NJU7074	LMC660AI ^{*4} LMC660AI ^{*4}	TLC27L4BC TLC27M4BC TLC274BC	TS27L4BC TS27M4BC TS274BC	ICL76L4A ICL76M4A ICL764A	

*1) The characteristics of I_B and I_{OUT} Vary with the version of the TLC271.

*2) The characteristics of LMC660C/662C are medium between NJU702X and NJU703X.

*3) The characteristics of MC14573 can be changed by I_{SET} condition.

*4) The characteristics of LMC660AI/662AI are medium between NJU7062X and NJU707X.

■ Ultra Small Package C-MOS

NJRC		Equivalent Products by Other Companies		
Ultra Small Package	Type No.	Toshiba	Hitachi	N-S
MTP-5 (Single)	NJU7011F NJU7012F NJU7013F NJU7017F	TC75S51F TC75S54F TC75S55F		
	NJU7091AF NJU7092AF NJU7093AF NJU7006F		HA16128	
SC88A (Single)	NJU7007F2 NJU7008F2	TC75S54FU		
VSP-8 (Dual)	NJU7014R NJU7015R NJU7016R NJU7018R NJU7019R	TC75W51FU TC75W54FU TC75W55FU		
	NJU7094R NJU7095R NJU7096R			
MTP-5 (Single)	NJU7042F			LMC7111BIM