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SMDI Cross-Reference: Broadband Amplifier Products (Gainblocks)

NOTE:

The "Comments" section is used to identify SIGNIFICANT differences between a Sirenza part and a competitor part. Comments are made relative to the Sirenza product. For example, "-Pdis" would indicate that the closest Sirenza product dissipates more power than the competitor part. "+OIP3" would indicate that the Sirenza product has a higher output third-order intercept point (better linearity), compared to the competitor

Abbreviations:

+ (plus sign) Sirenza part has advantage, relative to competitor part

- (minus sign) Sirenza part has disadvantage, relative to competitor part

IRL	Input Return Loss	Pdis	Dissipated Power	EFF	Efficiency
ORL	Output Return Loss	WWW	Price came from Internet	BW	Bandwidth
NF	Noise Figure	dmode	Depletion mode device negative bias required	VS	Different Supply Voltage
RB	Bias Resistor (-required)	ESD	Built-in electrostatic discharge protection		

				SMDI, 1st Option		SMDI, 2nd Option		Also look at:
Manufact.	Part Number	Freq.	ASP	Part #	Comments	Part #	Comments	
Agilent	MGA-52543	0.4-6GHz	\$1.37/10k, www	SPF-3043	-dmode	SGA-8343	-NF	
Agilent	MGA-53543	0.45-6GHz	\$1.61/10k, www	SPF-3043	-dmode	SGA-8343	-NF	
Agilent	MGA-81563	0.1-6 GHz	\$0.95.10k, www	SGA-4263	- NF, +OIP3,+IRL, -RB	SGA-4563	+NF, +Gain, +IRL, -RB	
Agilent	MGA-82563	0.1-6 GHz	\$1.12/10k, www	SGA-5263	-NF, -RB	SGA-4163	+Gain, -RB	
Agilent	MGA-83563	0.5-6 GHz	\$1.43/10k, www	SGA-7489	-RB			
Agilent	MGA-85563	0.8-6GHz	\$1.10/10k, www	SGL-0263	+IRL	SGA-8343	SOT43,-RB, +NF	SPF-3043,SGA-24
Agilent	MGA-86563	1.5-8GHz	\$1.31/10k, www	SGL-0263	+IRL	SGA-8343	SOT43,-RB, +NF	SPF-3043,SGA-24
Agilent	MGA-87563	0.5-4 GHz	\$1.08/10k, www	SGL-0263	+IRL,+ORL	SGA-0163	-RB,+NF	SPF-3043,SGA-24,SGA-12
Anadigics	SGB-3302	0.25-3 GHz		SBA-4089	-Gain	SGA-6389		
Anadigics	AGB-3303	0.25-3 GHz		SBA-5089		SGA-7489		
Anadigics	AGB-3304	0.25-2.5 GHz		SXA-389	+OIP3	SBA-5089		SGA-7489
Anadigics	AGB-3306	0.25-3.0 GHz		SGA-5489	-Pdis, +OIP3	SNA-386	-SOT-86	
Anadigics	AGB-3307	0.25-3.0 GHz		SBA-4089		SGA-6289	-OIP3	
Anadigics	AGB-3309	0.25-2.5 GHz		SBA-4089	-RB, +OIP3	SGA-6389	-RB	New 'SGB' series
Anadigics	AGB-3310	0.25-3.0 GHz		SBA-5089	-RB	SXA-389	-Pdis,+OIP3	
Anadigics	AGB-3311	0.25-3.0 GHz		SGA-5489	-Pdis, +OIP3, -RB	SNA-386	-SOT-86	New 'SGB' series
Anadigics	SGB-3312	0.25-3.0 GHz		SBA-4089	-RB	SGA-6289	-RB	
EIC	ECG-001B	DC-6 GHz		SGA-5489	-Pdis, +OIP3	SBA-3086	SOT86, +ESD	
EIC	ECG-001C	DC-6 GHz		SBA-3086	+ESD	SNA-386		
EIC	ECG-001F	DC-6 GHz		SGA-3463		SBA-3086	SOT86, +ESD	
EIC	ECG-004B	DC-6 GHz		SGA-5389	-Pdis, +OIP3	SGA-4386	SOT86	
EIC	ECG-004C	DC-6 GHz		SGA-4386		SNA-286		
EIC	ECG-004F	DC-6 GHz		SGA-4363		SGA-4386	SOT-86	
EIC	ECG-006B	DC-6 GHz		SGA-5389	-Pdis	SGA-5386	SOT86, +Pdis	
EIC	ECG-006C	DC-6 GHz		SNA-286		SGA-5386	-Pdis	
EIC	ECG-006F	DC-6 GHz		SGA-5263	-Pdis	SGA-5389	SOT89, -Pdis	
EIC	ECG-002B	DC-6 GHz		SGA-5589	-Pdis	SGA-5489	SOT89, -Pdis	
EIC	ECG-002C	DC-6 GHz		SGA-5586	-Pdis	SNA-386	-OIP3	
EIC	ECG-002F	DC-6 GHz		SGA-4463	-OIP3	SGA-5489	SOT89, -Pdis	
EIC	ECG-040B	DC-4 GHz		SBA-4089	+ESD	SGA-6389	- OIP3	
EIC	ECG-040C	DC-4 GHz		SBA-4086	+ESD	SGA-6386	- OIP3	

EIC	ECG-005B	DC-3 GHz		SBA-5089	-Pdis, +OIP3, +ESD	SGA-6489		
EIC	ECG-005C	DC-3 GHz		SBA-5086	-Pdis, +OIP3, +ESD	SGA-6486		
EIC	ECG-055B	DC-3 GHz		SBA-5089	-Pdis, +OIP3, +ESD	SGA-6489		
EIC	ECG-055C	DC-3 GHz		SBA-5086	-Pdis, +OIP3, +ESD	SGA-6486		
EIC	EC-1119B	DC-6 GHz		SBA-4089	+OIP3, +ESD	SBA-4086	+OIP3, +ESD, SOT86	
EIC	EC-1119C	DC-6 GHz		SBA-4086	+OIP3, +ESD	SBA-4089	+OIP3, +ESD, SOT89	
EIC	ECG-050B	DC-4 GHz		SBA-5089	+OIP3, +ESD	SBA-5086	+OIP3, +ESD, SOT86	
EIC	ECG-050C	DC-4 GHz		SBA-5086	+OIP3, +ESD	SBA-5089	+OIP3, +ESD, SOT89	
EIC	EC-1019B	DC-6 GHz		SGA-6489	+OIP3	SBA-5089	+OIP3, +ESD	
EIC	EC-1019C	DC-6 GHz		SGA-6486	+OIP3	SBA-5086	+OIP3, +ESD	
EIC	ECG-012B	DC-2.5GHz		SBA-4089	+ESD	SGA-6389		
EIC	EC-1078B	DC-6 GHz		SBA-5089	+Pdis, +ESD	SGA-7489	-Pdis	
EIC	EC-1078C	DC-6 GHz		SBA-5086	+Pdis, +ESD	SGA-6486	OIP3	
EIC	ECG-003B	DC-6 GHz		SBA-5089	-Pdis, -OIP3	SGA7489	-OIP3	
Hittite	HMC313	DC-6 GHz		SGA-4463	SOT63, +Pdis	SGA-4363	SOT63, +Pdis	
Hittite	HMC315	DC-6 GHz		SGA-4263	SOT63, +Pdis	SBA-4086	SOT86, +OIP3, +ESD	
Minicircuits	ERA1	DC-8 GHz		SNA-186	Identical Die!	SGA-3286		
Minicircuits	ERA1SM	DC-8 GHz		SNA-186	Identical Die!	SGA-3286		
Minicircuits	ERA2	DC-6 GHz		SNA-286	Identical Die!	SGA-3286		
Minicircuits	ERA21SM	DC-8 GHz		SGA-3286		SGA-4186		
Minicircuits	ERA2SM	DC-6 GHz		SNA-286	Identical Die!	SGA-4186		
Minicircuits	ERA3	DC-3 GHz		SNA-386	Identical Die!	SGA-3386		
Minicircuits	ERA33SM	DC-3 GHz		SNA-386		SGA-4286		
Minicircuits	ERA3SM	DC-3 GHz		SNA-386	Identical Die!	SGA-3486		
Minicircuits	ERA4	DC-4 GHz		SNA-486	Identical Die!	SBA-4086	+ESD	
Minicircuits	ERA4SM	DC-4 GHz		SNA-486	Identical Die!	SBA-4086	+ESD	
Minicircuits	ERA5	DC-4 GHz		SNA-586	Identical Die!	SBA-5086	+ESD	
Minicircuits	ERA5SM	DC-4 GHz		SNA-586	Identical Die!	SBA-5086	+ESD	
Minicircuits	ERA50SM	DC-1.5 GHz		SNA-586		SBA-5086	+ESD	
Minicircuits	ERA51SM	DC-4 GHz		SGA-5386		SBA-5086	-Pds, +OIP3, +ESD	
Minicircuits	ERA6	DC-4 GHz		SNA-686	Identical Die!	SBA-4086	+ESD	
Minicircuits	ERA6SM	DC-4 GHz		SNA-686	Identical Die!	SBA-4086	+ESD	
Minicircuits	GALI1	DC-8 GHz		SGA-5289	-Pdis, + OIP3	SNA-186	-Pdis, +Linearity, SOT86	
Minicircuits	GALI19	DC-7 GHz		SGA-5289	-Pdis, + OIP3	SNA-186	-Pdis, +Linearity, SOT86	
Minicircuits	GALI21	DC-8 GHz		SGA-5389	-Pdis, + OIP3	SNA-286	-Pdis, +Linearity, SOT86	
Minicircuits	GALI29	DC-7 GHz		SGA-5389	-Pdis, + OIP3	SNA-286	-Pdis, +Linearity, SOT86	
Minicircuits	GALI2	DC-8 GHz		SGA-5389	-Pdis, + OIP3	SNA-286	-Pdis, +Linearity, SOT86	
Minicircuits	GALI33	DC-4 GHz		SBA-3089	+OIP3, +ESD	SNA-286	-Pdis, +Linearity, SOT86	SGA-5489
Minicircuits	GALI39	DC-7 GHz		SBA-3089	+OIP3, +ESD	SNA-286	-Pdis, +Linearity, SOT86	SGA-5489
Minicircuits	GALI3	DC-3 GHz		SBA-3089	+OIP3, +ESD	SNA-386	+Linearity, SOT86	SGA-5489
Minicircuits	GALIS66	DC-3 GHz		SGA-5589		SGA-2486		
Minicircuits	GALI6F	DC-4 GHz		SGA-5289		SGA-5589		
Minicircuits	GALI4F	DC-4 GHz		SGA-5389		SBA-4089	-Pdis, +OIP3, +ESD	
Minicircuits	GALI51F	DC-4 GHz		SGA-5489		SBA-5089	-Pdis, +OIP3, +ESD	
Minicircuits	GALI5F	DC-4 GHz		SGA-5489				
Minicircuits	GALI55	DC-4 GHz		SGA-5589				
Minicircuits	GALI52	DC-2GHz		SGA-5589				
Minicircuits	MAR1SM	DC-1 GHz		SGA-2286				
Minicircuits	MAR2SM	DC-2GHz		SGA-2186				
Minicircuits	MAR3SM	DC-2GHz		SGA-3286				

Minicircuits	MAR3SM	DC-1 GHz		SGA-4186				
Minicircuits	MAR4SM	DC-1 GHz		SGA-3286		SGA-4186		
Minicircuits	MAR6SM	DC-2 GHz		SGA-2286				
Minicircuits	MAR7SM	DC-2 GHz		SGA-2286				
Minicircuits	MAR8SM	DC-1 GHz		SGA-3386		SGA-3486		
Minicircuits	MAV11SM	0.050-1 GHz		SGA-5386	SOT-86			
Minicircuits	MAV11A	0.050-2 GHz		SGA-6286	SOT-86			
Minicircuits	RAM1	DC-1 GHz		SGA-2286				
Minicircuits	RAM2	DC-2 GHz		SGA-2186				
Minicircuits	RAM3	DC-2 GHz		SGA-3286		SGA-4186		
Minicircuits	RAM4	DC-1 GHz		SGA-3286		SGA-4186		
Minicircuits	RAM6	DC-2 GHz		SGA-2286				
Minicircuits	RAM7	DC-2 GHz		SGA-2286				
Minicircuits	RAM8	DC-1 GHz		SGA-3386		SGA-3486		
RFMD	NBB300	DC-12 GHz		SNA-176		SNA-186		
RFMD	NBB310	DC-12 GHz		SNA-176		SNA-186		
RFMD	NBB400	DC-12 GHz		SNA-376	+Pdis, -OIP3	SNA-386		
RFMD	NLB300	DC-10 GHz		SNA-186		SGA-4286		
RFMD	NLB310	DC-10 GHz		SNA-186		SGA-4286		
RFMD	NLB400	DC-6 GHz		SGA-4386		SNA-386	+Pdis, -OIP3	
RFMD	RF2043	DC-6 GHz		SGA-6286		SGA-5286	-Pdis, -OIP3	SNA-x76
RFMD	RF2044	DC-6 GHz		SBA-5086	-Pdis, +OIP3	SGA-5486		SNA-x76
RFMD	RF2045	DC-6 GHz		SBA-4086	-Pdis, +OIP3	SGA-5286	-Pdis, -OIP3	SNA-x76
RFMD	RF2046	DC-3 GHz		SNA-376		SGA-3486	+Pdis	
RFMD	RF2047	DC-6 GHz		SNA-276		SGA-4286		SNA-x76
RFMD	RF2048	DC-8 GHz		SNA-176		SGA-4186		SNA-x76
WJ	AG201-63	DC-6 GHz		SGA-2163	+Pdis	SGA-1163		
WJ	AG201-86	DC-6 GHz		SGA-2186	+Pdis			
WJ	AG202-63	DC-6 GHz		SGA-2263	+Pdis	SGA-1263		
WJ	AG202-86	DC-6 GHz		SGA-2286	+Pdis			
WJ	AG203-63	DC-6 GHz		SGA-2363	+Pdis	SGA-2363		
WJ	AG203-86	DC-6 GHz		SGA-2386	+Pdis	SGA-2486		
WJ	AG302-63	DC-6 GHz		SGA-3263	+Pdis	SGA-4363		
WJ	AG302-86	DC-6 GHz		SGA-3286	+Pdis	SGA-4386		
WJ	AG303-63	DC-6 GHz		SGA-3463	+Pdis			
WJ	AG303-86	DC-6 GHz		SGA-3486	+Pdis			
WJ	AG402-86	DC-6 GHz		SGA-5386	+Pdis	SGA-5389		
WJ	AG402-89	DC-6 GHz		SGA-5389	+Pdis			
WJ	AG403-86	DC-6 GHz		SGA-5486	+Pdis			
WJ	AG403-89	DC-6 GHz		SGA-5489	+Pdis	SGA-5589		
WJ	AG503-86	DC-6 GHz		SGA-4286	+Pdis	SGA-4386		
WJ	AG503-89	DC-6 GHz		SGA-5289	-Pdis, +OIP3			
WJ	AG602-86	DC-6 GHz		SBA-4086	+OIP3, +ESD	SGA-6286		
WJ	AG602-89	DC-6 GHz		SBA-4089	+OIP3, +ESD	SGA-6289		
WJ	AG603-86	DC-6 GHz		SBA-5086	+OIP3, +ESD	SGA-6486		
WJ	AG603-89	DC-6 GHz		SBA-5089	+OIP3, +ESD	SGA-6489		
WJ	AG604-86	DC-6 GHz		SBA-5086	+OIP3, +ESD	SGA-6486		
WJ	AG604-89	DC-6 GHz		SBA-5089	+OIP3, +ESD	SGA-6589		

SMDI Cross-Reference: Medium-Power RFIC Amplifiers

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Abbreviations:

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IRL	Input Return Loss	Pdis	Dissipated Power	EFF	Efficiency
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RB	Bias Resistor (-required)	ESD	Built-in electrostatic discharge protection		

Manufact.	Part Number	Freq.	Supply	ASP	SMDI, 1st Option		SMDI, 2nd Option		Also look at:
					Part #	Comments	Part #	Comments	
Celeritek	CFK2062-P1	800-900	5-8V/400-600mA		SPA-1118	(SO-8 Power) package	SHF-0289	(SO-8 Power) package	
Celeritek	CFK2062-P3	1800-2000	5-8V/400-600mA		SPA-1218/1318	(SO-8 Power) package	SHF-0289	(SO-8 Power) package	
Celeritek	CFK2162-P1	800-900	5-8V/350-600mA		SPA-1118	(SO-8 Power) package	SHF-0289	(SO-8 Power) package	
Celeritek	CFK2162-P3	1800-2000	5-8V/350-600mA		SPA-1218/1318	(SO-8 Power) package	SHF-0289	(SO-8 Power) package	
EIC	EC1089	DC-2500	5V/160mA		SXA/T-289	+Gain, +Pdis	SXA-389	+ P1dB/OIP3	
EIC	ECG008	DC-6000	7.3V/120mA	\$3.60/5K/www	SXA-289	-Freq range	SXA-389	-Freq range	
EIC	ECG009	DC-2500	5V/150mA	\$3.60/5K/www	SXA-389	+Pdis			
EIC	ECG014	50-2000	5V/100mA	\$4.05/5K/www	SXA-289				
EIC	ECP050	1800-2300	5V/250mA	\$5.5/5K/www	SGA-9289	-OIP3, (QFN-16 or SOIC-8) package	SPA-1x18	+P1/OIP3, (QFN-16 or SOIC-8) package	Balanced SXA-389
EIC	ECP100	100-2300	5V/450mA	\$6.25/5K/www	SPA-1x18	(QFN-16 or SOIC-8) package	SPA-2x18	+Gain, (QFN-16 or SOIC-8) package	
EIC	ECP200	100-2300	5V/800mA	\$7.5/5K/www	Balanced SPA-1x18	(QFN-16 or SOIC-8) package			
Fujitsu	FLU17XM		10V/360mA		Balanced SPA-1x18	(hermetic/ceramic) package	SPA-1x18	+Pdis, -P1dB, (hermetic/ceramic) package	Balanced SHF-0289
MA-COM	MAAMSS0007	1700-2500	5V/100mA	\$2.23/5K/www	SXA-389	(3mm FQFP-N) package			
MA-COM	MAAMSS0014	500-2400	5V/110mA		SXA-389	+OIP3			
MA-COM	MAAMSS0017	50-450	5V/70mA	\$2.23/5K/www	SXA-289	Vs			
Metelics	MMA701	100-4000	5-7V/130mA		SXA-389	+ Pdis	SPA-1x18	(SOT-89) package, +P1dB	
NEC	NE6500179A	800-2500	6V/200mA		SPA-1x18	(79A) package, Vs	SHF-0289	(79A) package	
NEC	NE650R279A	800-2500	6V/50mA		SXA/T-289	(79A) package	SGA-9189	(79A) package	
NEC	NE650R479A	800-2500	6V/100mA		SGA-9289	(79A) package			
NEC	NE651R479A	800-2500	3.5V/50mA	\$3.78/500/www	SGA-9289	(79A) package			
RFMD	RF2125P	1500-2200	6V/360mA	\$3.44/10K/www	SPA-1x18	+OIP3			
RFMD	RF2126	1800-2500	3-6V/350mA	\$3.39/10K/www	SPA-1x18	+OIP3			
RFMD	RF3800	800-960	7V/650mA	advanced	SPA-1118	-P1dB, +Pdis			
RFMD	RF3802	1800-2200	7V/650mA	advanced	SPA-1218/-1318	-P1dB, +Pdis			
RFMD	RF3804	2110-2170	7V/860mA	advanced	SPA-2318	-P1dB, +Pdis			
RFMD	RF3805	2110-2170	7V/1140mA	advanced	SPA-2318	-P1dB, +Pdis			
RFMD	RF5187	800-2500	5V/240mA	\$3.39/10K/www	SPA-1x18	+P1dB/OIP3			
Skyworks	CX65001	160-700	5V/120mA		SXA-289	(SOIC-8) package, -OIP3			
Skyworks	CX65002	700-1400	5V/120mA		SPA-1118	+P1dB			
Skyworks	CX65003	1400-2500	5V/120mA		SPA-1218/1318	+P1dB			
Skyworks	CX65100	700-1000	3.4V/120mA		SPA-2118	(8x8mm LCC) package, +OIP3, +P1dB			
Skyworks	CX65101	1700-2200	3.4V/130mA		SPA-2318	(8x8mm LCC) package, +OIP3, +P1dB			
Skyworks	CX65102	1700-2200	3.4V/95mA		SPA-2318	(6x6mm LCC) package, +OIP3, +P1dB			
Skyworks	CX65104	700-1000	5V/55mA		SPA-2118	(8x8mm LCC) package, +OIP3			
Skyworks	CX65105	1700-2200	5V/143mA		SPA-2318	(8x8mm LCC) package, +OIP3, +P1dB			
WJ	AH1	250-3000	5V/150mA	\$3.92/1K/www	SXA/T-289	Vs, +Gain	SGA-7489	Vs, +Gain, -OIP3	SXA-389
WJ	AH101	50-1500	9V/200mA	\$7.58/1K/www	SGA-9289	-OIP3	SPA-1x18	Vs, +P1dB, +OIP3	
WJ	AH102	350-3000	9V/200mA	\$7.58/1K/www	SGA-9289	-OIP3	SPA-1x18	Vs, +P1dB, +OIP3	
WJ	AH201	50-2200	11V/350mA	\$10.44/1K/www	SPA-1x18	+ Pdis, (6mm QFN) package	SPA-2x18	+Gain, +Pdis, (6mm QFN) package	
WJ	AH3/31	50-860	5V/150mA	\$3.85/1K/www	SXA-289	Vs, +Gain			

SMDI Cross-Reference: Discrete Power Transistors

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				SMDI, 1st Option		SMDI, 2nd Option		Also look at:
Manufact.	Part Number	Bias	ASP	Part #	Comments	Part #	Comments	
Celeritek	CFK2062-P1	5-8V/400-600mA		SPA-1118	(SO-8 Power) package	SHF-0289	(SO-8 power) package, +Pdiss	
Celeritek	CFK2062-P3	5-8V/400-600mA		SPA-1218/-1318	(SO-8 Power) package	SHF-0289	(SO-8 power) package, +Pdiss	
Celeritek	CFK2162-P1/P3	5-8V/350-600mA		SHF-0289	(SO-8 power) package, +Pdiss	SPA-1x18	(SO-8 power) package, +Pdiss	
Celeritek	CMM2305	5V/70mA		SPF-3043	(MSOP-8) package, +NF	SGA-64xx	(MSOP-8) package	
Celeritek	CMM2306	5V/70mA		SPF-3043	(SOIC-8) package, +NF	SGA-64xx	(SOIC-8) package	
Celeritek	CMM2308	5V/70mA		SPF-3043	(SOIC-8) package, +NF			
Celeritek	CMM6004-AH/SC	5V/175mA		SGA-9189	(LGA)package, -NF	SGA-9289	(LGA)package, -NF	SXA/T-289
Celeritek	CMM6025-AH	5V/370mA		SGA-9189	(LGA)package, -NF, -IP3, +Pdiss	SGA-9289	(LGA)package, -NF, +P1dB	SHF-0189
Excelics	EFA120D-SOT89	7V/180mA		SHF-0189				
Excelics	EFA240D-SOT89	7V/350mA		SHF-0289				
Fujitsu	FLU17XM	10V/360mA		Balanced SHF-0289	(XM ceramic) package	SPA-1x18	(XM ceramic)Package, Vs, -P1dB	SHF-0289
Mitsubishi	MGF0904A	8V/200mA		SGA-9289	(GF-7) package, -P1dB	SHF-0289	(GF-7) package	
Mitsubishi	MGF0913A	10V/200mA		SHF-0289	(GF-50) package			
Mitsubishi	MGF0916A	6V/100mA		SGA-9189	(GF-50) package, -Gain	SXA/T-289	(GF-50) package, -NF, -Gain	SXA-389
Mitsubishi	MGF0917A	10V/75mA		SGA-9189	(GF-50) package, -Gain	SXA/T-289	(GF-50) package, -NF, -Gain	
Mitsubishi	MGF0918A	10V/150mA		SGA-9289	(GF-50) package, -Gain, -NF	SHF-0289	(GF-50) package	
Mitsubishi	MGF1601B	6V/100mA		SHF-0186	(GD-11) package			
Mitsubishi	MGF1801B	6V/100mA		SHF-0186	(GD-11) package			
NEC	NE6510179A	3.5-5V/200mA	\$4.79/100/www	SHF-0289	(79A) package	SPA-1x18	(79A) package	
NEC	NESG2101M05	3V/50mA		SGA-9189	(F4TSMM) package			
ST Micro	START499	3V/200mA	\$0.39/3K/www	SGA-9189	(SOT-343) package, Vs	SXA/T-289	(SOT-343) package, Vs	
WJ	FP1189	8V/125mA	\$3.38/1K/www	SHF-0189				
WJ	FP2189	8V/250mA	\$4.96/1K/www	SHF-0289				

SMDI Cross-Reference: Discrete Low-Noise Transistors

NOTE:

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IRL	Input Return Loss	Pdis	Dissipated Power	EFF	Efficiency
ORL	Output Return Loss	WWW	Price came from Internet	BW	Bandwidth
NF	Noise Figure	dmode	Depletion mode device negative bias required	VS	Different Supply Voltage
RB	Bias Resistor (-required)	ESD	Built-in electrostatic discharge protection		

Manufact.	Part Number	Freq.	ASP	SMDI, 1st Option		SMDI, 2nd Option	
				Part #	Comments	Part #	Comments
Agilent	AT-41411	8V/10mA	\$0.20/25K/www	SGA-8343	Vs, (SOT-143) package		
Agilent	AT-415xx	5V/5mA	\$0.64/10K/www	SGA-8343	multiple packages		
Agilent	AT-42085	8V/10mA	\$1.40/100/www	SGA-8343	Vs, (-86)package		
Agilent	ATF-33143	4V/80mA	\$1.86/10K/www	Balanced SPF-3043			
Agilent	ATF-34143	4V/60mA	\$1.60/10K/www	SPF-3043			
Agilent	ATF-36077	1.5V/10mA	\$3.30/5K/www	SPF-3043	(70mil ceramic) package, Vs		
Agilent	ATF-36163	2V/15mA	\$0.45/5K/www	SPF-3043	(SOT-363) package, Vs		
Agilent	ATF-38143	2V/10mA	\$0.46/10K/www	SPF-3043	Vs		
Agilent	ATF-55143	2.7V/10mA	\$0.77/10K/www	SPF-3043	(SC-70) package, dmode		
Agilent	ATF-551M4	2.7V/10mA	\$0.77/10K/www	SPF-3043	(minipak)package, dmode		
Agilent	ATF-58143	3V/30mA	\$1.15/10K/www	SPF-3043	(SC-70)package, dmode		
Celeritek	CFB0301	4V/30mA		SPF-3043	(70mil) package		
Celeritek	CFK0301	4V/30mA		SPF-3043	(ESOP-8) package		
Infineon	BFP420	2V/20mA	\$0.2/10K/www	SPF-3043			
Infineon	BFP450	3V/50mA	\$0.26/5K/www	SGA-8343			
Infineon	BFP540	2V/5-20mA	\$0.28/5K/www	SGA-8343			
Infineon	BFP620	2V/5-20mA	\$0.36/5K/www	SPF-3043			
Infineon	BGA428	2.75V/8mA		SGA-8343	+P1/OIP3, (SOT-363) package		
Infineon	BGA622	3.5V/10mA		SGA-8343	+P1/OIP3, (SOT-343) package		
NEC	NE34018	2-3V/5-30mA	\$1.85/1K/www	SPF-3043	(4SMM) package		
NEC	NE38018	2-3V/5-30mA	\$2.47/500/www	SPF-3043	(4SMM) package		
NEC	NESG2021M05	3V/10mA		SGA-8343	(F4TSMM) package		
NEC	NESG2031M05	3V/20mA		SGA-8343	(F4TSMM) package		
RFMD	RF2347	3V/10-20mA	\$1.53/10K/www	SGA-8343	(MSOP-8) package		
RFMD	RF2361	3V/7.5mA	\$0.71/10K/www	SGA-8343	(SOT-5) package		
ST Micro	START405	2V/2-5mA	\$0.33/3K/www	SGA-8343			
ST Micro	START420	2V/5-20mA	\$0.33/3K/www	SGA-8343			
ST Micro	START450	2V/10-50mA	\$0.35/3K/www	SGA-8343			
ST Micro	START540	2V/5-20mA	\$0.39/3K/www	SGA-8343			

SMDI Cross-Reference: Integrated Power Products

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BW Bandwidth

NF Noise Figure

dmode

Depletion mode device negative bias required

RB Bias Resistor (-required)

ESD

Built-in electrostatic discharge protection

				SMDI, 1st Option		SMDI, 2nd Option	
Manufact.	Part Number	Freq.	ASP	Part #	Comments	Part #	Comments
Hybrid Modules							
Motorola	MHL9838	800 - 925		XD010-12S-D4F	+P1dB, +ACPR, +Eff, +Pdis, +Temp Comp, -bw		
Motorola	MHL9236	800 - 960		XD010-12S-D4F	+P1dB, +ACPR, +Eff, +Pdis, +Temp Comp, -bw		
Motorola	MHW1810-1	1805 - 1880		XD010-22S-D4F	+Gain, +Gain Flatness, + IRL, +Temp Comp, -Eff		
Motorola	MHW1810-2	1805 - 1880		XD010-22S-D4F	+Gain, +Gain Flatness, + IRL, +Temp Comp, -Eff		
Motorola	MHPA18010	1805 - 1880		XD010-22S-D4F	+Gain, +P1dB, Few specs on the data sheet		
Motorola	MHL18336	1800 - 1900		XD010-22S-D4F	+P1dB, +Linearity, +Pdis, -Gain, -IRL, -bw		
Motorola	MHL18926	1805 - 1880		XD010-22S-D4F	+P1dB, +Eff, +Pdis, -IRL		
Motorola	MHPA19010	1930 - 1990		XD010-24S-D2F	+Gain, +Gain Flatness, +Pdis, +IMD, +Temp Comp, -Gain Flatness, -Eff, -P1dB, -IRL		
Motorola	MHL19936	1900 - 2000		XD010-24S-D2F	+Pdis, +IMD, +Temp Comp, -Gain, -Gain Flatness, -IRL, -Eff, -bw		
Motorola	MHL19338	1900 - 2000		XD010-24S-D2F	+Pdis, +P1dB, +IMD, -Gain, -Gain Flatness, -IRL		
Motorola	MHL19926	1930 - 1990		XD010-24S-D2F	+Pdis, +IMD, -Gain, -IRL		
Motorola	MHW1910-1	1930 - 1990		XD010-24S-D2F	+Gain, -IRL, -P1dB, -Eff		
Motorola	MHPA21010	2110 - 2170		XD010-35S-D2F	+Gain, +Gain Flatness, +Pdis, +Eff, +IRL, -IMD		

Phillips	BGF802-20	869 - 894		XD010-12S-D4F	+Gain, +Gain Flatness, +IRL, - Eff, -Pdis, -ACPR		
Phillips	BGF844	869 - 894		XD010-12S-D4F	+Gain, +Gain Flatness, +IRL, - Eff, -Pdis, -ACPR		
Phillips	BGF944	920 - 960		XD010-14S-D4F	+Gain, +Gain Flatness, +IRL, - Pdis, -ACPR		
Phillips	BGY916	920 - 960		XD010-14S-D4F	+Gain, +Gain Flatness, +IRL, - P1dB, -Pdis		
Phillips	BGY916-5	920 - 960		XD010-14S-D4F	+Gain, +Gain Flatness, +IRL, - P1dB, -Pdis		
Phillips	BGY925	920 - 960		XD010-14S-D4F	+Gain, +Pdis, +Eff, +IRL		
Phillips	BGY925-5	920 - 960		XD010-14S-D4F	+Gain, +Pdis, +Eff, +IRL		
Phillips	BGY2016	1805 - 1900		XD010-22S-D4F	+Gain Flatness, +Pdis, +IRL, - Gain, -P1dB		

POWER IC's

Motorola	MW4IC915MBR1	860 - 960		XD010-12S-D4F	+Gain, +IRL, +Thermal Characteristics. +Temp Comp, +Output matched, -Pdis, -Eff, -bw		
Motorola	MHVIC910HR2	921 - 960		XD010-14S-D4F	+Gain, +IRL, +Thermal Characteristics. +Temp Comp, +Output matched, -Pdis, -Eff		
Motorola	MHVIC2115R2	2100 - 2170		XD010-35S-D2F	+Temp Comp, +Thermal Characteristics. +Output matched, -Gain, -Eff. Few specs listed on data sheet.		
Motorola	MWIC930R1	746 - 894		XD010-12S-D4F	+Gain, +IRL, +Thermal Characteristics. +Temp Comp, +Output matched, -Pdis, -P1dB, - IMD, -Eff, -bw		
Motorola	MHVIC915R2	746 - 960		XD010-12S-D4F	+Gain, +IRL, +Thermal Characteristics. +Temp Comp, +Output matched, -Pdis, -P1dB, - IMD, -Eff, -bw, Few specs on the data sheet		
Motorola	MW4IC2230MBR	2110 - 2170		XD010-35S-D2F	+Temp Comp bias, +Thermal Characteristics, +Output matched, -Gain, -P1dB. Few specs listed on data sheet.		
Motorola	MW4IC2020MBR	1805 - 1990		XD010-22S-D4F	+P1dB, +Temp Comp bias, +Thermal Characteristics, +Output matched, -Gain, -IMD		

SMDI Cross-Reference: 10 GB/s Fiber Optic Transimpedance Amplifiers

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WWW

Price came from Internet

BW Bandwidth

NF Noise Figure

dmode

Depletion mode device negative bias required

VS Different Supply Voltage

RB Bias Resistor (-required)

ESD

Built-in electrostatic discharge protection

Manufact.	Part Number	Freq.	ASP	SMDI, 1st Option		SMDI, 2nd Option	
				Part #	Comments	Part #	Comments
AMCC	S3090	10Gb/s	\$50/10K	SFT-0100	5V, -(offset adjust), +IMON		
AMCC	S3390	10Gb/s		SFT-5100	-gain	SFT-6100	-gain
Anadigics	ATA7603	10Gb/s		SFT-0100	5V, +IMON		
Anadigics	ATA7602	10Gb/s		SFT-0100	5V, -(offset adjust), +IMON		
Anadigics	ATA7601	10Gb/s		SFT-0100	+IMON		
Conexant	CX60057	10Gb/s		SFT-0100	+IMON		
Infineon	FOA11002A1	10Gb/s		SFT-0100	-gain		
Maxim	MAX3910	10Gb/s	\$50/10K	SFT-0100	-offset adjust		
Maxim	MAX3970	10Gb/s	\$50/10K	SFT-5100		SFT-6100	
NEL	CI0119CH	10Gb/s		SFT-5100	-power dissipation	SFT-6100	-power dissipation
Nortel	AE99	10Gb/s		SFT-0100	+IMON		
Nortel	D68	10Gb/s		SFT-0100	+IMON		
Oepic	T1002-A	10Gb/s		SFT-0100			
Oepic	T1002-A	10Gb/s		SFT-0100			
OKI	KGA4121D	10Gb/s		SFT-0100	+differential, +IMON		
OKI	KGA4130	10Gb/s		SFT-0100	+differential, +IMON		
OKI	KGA4121D	10Gb/s		SFT-0100	+differential, +IMON		
Philips	CGY2110CU	10Gb/s	\$60/10K	SFT-0100	5V, +IMON		
Quake	QT1090	10Gb/s		SFT-5100	-gain	SFT-6100	-gain
Quake	QT1091	10Gb/s		SFT-5100	-gain	SFT-6100	-gain
Sierra Monoli	SMI1050	10Gb/s		SFT-5100		SFT-6100	
Sierra Monoli	SMI1052	10Gb/s		SFT-0100			
Sierra Monoli	SMI1053	10Gb/s		SFT-0200	+bandwidth		
Triquint	TGA-4805-EPU	10Gb/s		SFT-0100	+IMON		
Vitesse	VSC7998	10Gb/s	\$45/10K	SFT-0100	5V, -(offset adjust), +IMON	SFT-5100	3.3V, -(offset adjust), +IMON
Vitesse	VSC7997	10Gb/s	\$50/10K	SFT-0100	5V, -gain, -offset adjust, +IMON	SFT-5100	3.3V, -gain, -offset adjust, +IMON
Vitesse	VSC7999	10Gb/s		SFT-0100	5V, -gain, -offset adjust, +IMON	SFT-5100	3.3V, -gain, -offset adjust, +IMON

SMDI Cross-Reference: OBSOLETE HP/AGILENT

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RB	Bias Resistor (-required)	ESD	Built-in electrostatic discharge protection		

				SMDI, 1st Option		SMDI, 2nd Option		Also look at:
Manufact.	Part Number	Freq.	ASP	Part #	Comments	Part #	Comments	
HP/Agilent	INA-01170			SNA-376	Equivalent package			
HP/Agilent	INA-02170			SNA-376	Equivalent package			
HP/Agilent	INA-02184			SGA-3586	Alternate package			
HP/Agilent	INA-02186			SGA-3586	Equivalent package			
HP/Agilent	INA-03184			SGA-3586	Alternate package			
HP/Agilent	INA-10386			SGA-3586	Equivalent package			
HP/Agilent	INA-12063			SGA-2363	Equivalent package			
HP/Agilent	INA-30311			SGA-1263	Alternate package			
HP/Agilent	INA-31063			SGA-1263	Equivalent package			
HP/Agilent	INA-32063			SGA-2363	Equivalent package			
HP/Agilent	INA-34063			SGA-2463	Equivalent package	SGA-3463	Equivalent package	
HP/Agilent	INA-50311			SGA-2463	Alternate package			
HP/Agilent	INA-51063			SGA-2463	Equivalent package			
HP/Agilent	INA-52063			SGA-2463	Equivalent package	SGA-3463	Equivalent package	
HP/Agilent	INA-54063			SGA-3463	Equivalent package			
HP/Agilent	MSA-0104			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0135			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0135			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0170			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0185			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0186			SGA-2186	Equivalent package	SGA-2286	Equivalent package	
HP/Agilent	MSA-0204			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0235			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0236			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0270			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0285			SGA-2186	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0286			SGA-2186	Equivalent package	SGA-2286	Equivalent package	
HP/Agilent	MSA-0304			SGA-3286	Alternate package	SNA-186	Alternate package	
HP/Agilent	MSA-0311			SGA-3263	Alternate package	SGA-2263	Alternate package	SGA-2163
HP/Agilent	MSA-0335			SNA-176	Alternate package	SGA-3286	Alternate package	
HP/Agilent	MSA-0336			SNA-176	Alternate package	SGA-3286	Alternate package	
HP/Agilent	MSA-0370			SNA-176	Equivalent package	SGA-3286	Alternate package	
HP/Agilent	MSA-0385			SGA-3286	Alternate package	SNA-186	Alternate package	
HP/Agilent	MSA-0386			SGA-3286	Equivalent package	SNA-186	Equivalent package	

HP/Agilent	MSA-0404			SGA-4186	Alternate package	SNA-186	Alternate package	
HP/Agilent	MSA-0420			SNA-176	Alternate package	SGA-4186	Alternate package	
HP/Agilent	MSA-0435			SNA-176	Alternate package	SGA-4186	Alternate package	
HP/Agilent	MSA-0436			SNA-176	Alternate package	SGA-4186	Alternate package	
HP/Agilent	MSA-0470			SNA-176	Equivalent package	SGA-4186	Alternate package	
HP/Agilent	MSA-0485			SGA-4186	Alternate package	SNA-186	Alternate package	
HP/Agilent	MSA-0486			SGA-4186	Equivalent package	SNA-186	Equivalent package	
HP/Agilent	MSA-0504			SGA-6286				
HP/Agilent	MSA-0505			SGA-6286				
HP/Agilent	MSA-0520			SGA-6286	Alternate package			
HP/Agilent	MSA-0611			SGA-2363	Alternate package			
HP/Agilent	MSA-0635			SGA-2386	Alternate package			
HP/Agilent	MSA-0636			SGA-2386	Alternate package			
HP/Agilent	MSA-0670			SGA-2386	Equivalent package			
HP/Agilent	MSA-0685			SGA-2486	Alternate package	SGA-2386	Alternate package	SGA-2286
HP/Agilent	MSA-0686			SGA-2486	Equivalent package	SGA-2386	Equivalent package	SGA-2286
HP/Agilent	MSA-0711			SGA-2263	Alternate package	SGA-2163	Alternate package	
HP/Agilent	MSA-0735			SNA-176	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0736			SNA-176	Alternate package	SGA-2286	Alternate package	
HP/Agilent	MSA-0770			SNA-176	Equivalent package	SGA-2286	Alternate package	
HP/Agilent	MSA-0785			SGA-2286	Alternate package	SGA-2186	Alternate package	
HP/Agilent	MSA-0786			SGA-2286	Equivalent package	SGA-2186	Equivalent package	
HP/Agilent	MSA-0835			SNA-376	Alternate package	SGA-3586	Alternate package	
HP/Agilent	MSA-0836			SNA-376	Alternate package	SGA-3586	Alternate package	
HP/Agilent	MSA-0870			SNA-376	Equivalent package	SGA-3586	Alternate package	
HP/Agilent	MSA-0885			SGA-3586	Alternate package	SGA-3486	Alternate package	SNA-386
HP/Agilent	MSA-0886			SGA-3586	Equivalent package	SGA-3486	Equivalent package	SNA-386
HP/Agilent	MSA-0910			SNA-176	Alternate package	SGA-2186	Alternate package	
HP/Agilent	MSA-0986			SGA-2186	Equivalent package	SNA-186	Equivalent package	
HP/Agilent	MSA-1104			SGA-5286	Alternate package	SGA-4186		
HP/Agilent	MSA-1105			SGA-5286	Alternate package	SGA-4186		
HP/Agilent	MSA-1110			SGA-5286				
HP/Agilent	MSA-1120			SGA-5286				
HP/Agilent	MSA-2011			SGA-3363	Alternate package	SGA-2363	Alternate package	
HP/Agilent	MSA-2035			SGA-3386	Alternate package	SGA-2386	Alternate package	
HP/Agilent	MSA-2085			SGA-3386	Alternate package	SGA-2386	Alternate package	
HP/Agilent	MSA-2086			SGA-3386	Equivalent package	SGA-2386	Equivalent package	
HP/Agilent	MSA-2111			SGA-3363	Alternate package	SGA-2363	Alternate package	
HP/Agilent	MS1-3111			SGA-2463	Alternate package	SGA-3363	Alternate package	
HP/Agilent	MSA-3135			SNA-376	Alternate package	SGA-2486	Alternate package	SGA-3386
HP/Agilent	MSA-3185			SGA-2486	Alternate package	SGA-3386	Alternate package	SNA-386
HP/Agilent	MSA-3186			SGA-2486	Equivalent package	SGA-3386	Equivalent package	SNA-386
HP/Agilent	MSA-9970			SGA-3386	Alternate package	SGA-3286	Alternate package	SGA-3486