SIRENZA MICRODEVICES

Product Selection Guide

Autumn 2001

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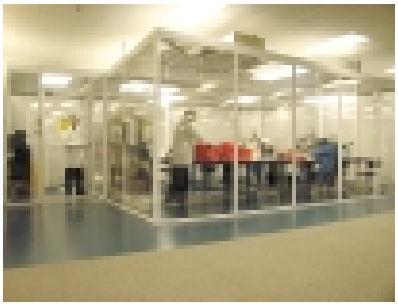
Sirenza Microdevices is a leading designer and supplier of high-performance radio frequency (RF) components for communications equipment manufacturers. Its products satisfy the demand for innovative solutions to meet expanding requirements for connectivity, mobility, functionality, reliability and bandwidth in advanced communication networks.



SMDI products are designed to meet the rapidly evolving performance requirements for mobile wireless applications such as cellular and mobile data networks, broadband wireline applications such as coaxial cable and fiber-optic networks, and fixed wireless applications such as local and wide-area site-to-site networks.

SMDI offers a broad line of products that range in complexity from discrete components to integrated circuits and multicomponent modules. These products are well suited for existing and future communications networks, which are expected to be increasingly centered on data transmission in addition to voice.

Sirenza Microdevices' products employ a number of today's most advanced process technologies to satisfy customers' exacting requirements for high frequency of operation, performance, power and competitive prices. Featured semiconductor technologies include gallium arsenide (GaAs), indium gallium phosphide (InGaP) and silicon germanium (SiGe). The company is an ISO-9001-1994-certified supplier.

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New Products:

SPA-2x18	Drivers, Power Amplifiers High ACP, High Gain, 1 Watt P1dB
IF Amps	Gain Blocks as IF Amplifiers Characterized at 100 MHz, 50 ohms, OIP3 up to +38 dBm
SRM-x016	Active Receive Mixers covering 800-2300 MHz
SRF-1016	IF Receiver/Demodulator covering 65-300 MHz
STQ-x016	Direct Quadrature Modulators covering 700-4000 MHz
SLX-2043	PHEMT LNA Module covering 1700-2500 MHz

Coming Soon :

SXA-389	400-2500 MHz Driver Amplifier with Active Bias, operates directly from +5 V rail
SPA-4x16	Driver, Power Amplifiers 2.4-3.8 GHz, up to 1 Watt P1dB
SPA-5x16	Driver, Power Amplifiers 5.1-5.9 GHz, up to 0.5 Watt P1dB

Optoelectronic Components

Recently Sirenza Microdevices began to leverage its design capability with high performance semiconductors to design its first series of devices targeted at optoelectronic components for 10Gb fiber optic transceivers. Both Indium Gallium Phosphide (InGaP) and Silicon Germanium (SiGe) device processes have been employed to produce a family of products for both telecom and datacom applications.

SFT series Transimpedance Amplifiers Sirenza Microdevices' SFT high performance transimpedance amplifiers (TIAs) are designed for 10 Gb/s SONET/SDH applications. A variety of gain levels are offered and features include automatic gain control (AGC) and current monitoring. Supply voltage is +5V for InGaP, and +3.3V for SiGe.

SFL series Limiting Amplifiers Sirenza Microdevices' SFL limiting amplifiers are designed for high gain and wide bandwidth for use in 10Gb Fiber Optic receivers to follow the TIA. Input signal levels from 5mV to 1600mV p-p (diff) are amplified/limited to a nominal 1.0 V p-p output (diff). Features include output enable and loss of signal detection.

SFD series Laser Driver Sirenza Microdevices' SFD laser driver is a high data rate VCSEL driver circuit that delivers peak and bias currents up to 30mA for fiber optic transmitters operating at data rates up to 10.7Gb/s (NRZ). Bias currents can be automatically controlled by a feedback signal from an integrated automatic power control circuit and can function in both open and closed loop operation. Peak and duty cycle control functions provide equalization of VCSEL distortion.

For futher information ragarding these new products, please send inquires to *fiberoptics-apps@sirenza.com*

SGA Series, SiGe High Linearity Gain Blocks

Silicon-Germanium (SiGe), Sirenza Microdevices' latest RF semiconductor process, offers benefits not attainable by conventional silicon-bipolar technologies: lower noise figures, lower power consumption, high output power at high efficiency, and high integration level. Future SiGe products from Sirenza Microdevices include RFICs for W-CDMA, UMTS, PCS, GSM, ISM, Cable-TV and power amplifiers.

Part Number	Vd (V)	Id (mA)	Freq (GHz)	P1dB (dBm)	Output IP_3 (dBm)	Gain@ 1GHz (dB)	Gain@ 2GHz (dB)	NF (dB)	Package Styles 63	86	89
Low Current, Low voltage Gain Blocks											
SGA-01	2.1	8	DC-4.5	-1.8	+9.4	12.7	12.0	4.7	SGA-0163		
SGA-03	2.5	11	DC-5.0	+2.3	+14.2	19.6	17.2	3.0	SGA-0363		
High Reverse Isolation Gain Blocks (>50dB at 900 MHz)											
SGA-11	4.6	12	DC-6.0	-3.3	+7.9	11.5	11.2	3.1	SGA-1163		
SGA-12	2.8	8	DC-4.0	-7.8	+2.6	15.7	14.7	2.7	SGA-1263		
General Purpose Gain Blocks											
SGA-21	2.2	20	DC-5.0	+7.3	+20.5	10.2	9.6	4.2	SGA-2163	SGA-2186	
SGA-22	2.2	20	DC-3.5	+8.0	+20.1	14.9	14.0	3.2	SGA-2263	SGA-2286	
SGA-23	2.7	20	DC-2.8	+8.5	+20.2	17.3	15.7	2.9	SGA-2363	SGA-2386	
SGA-24	2.7	20	DC-2.0	+8.2	+20.1	19.7	16.9	2.7	SGA-2463	SGA-2486	
SGA-32	2.6	35	DC-3.6	+11.9	+25.9	14.7	13.3	3.7	SGA-3263	SGA-3286	
SGA-33	2.6	35	DC-3.6	+12.0	+24.9	17.3	15.6	3.1	SGA-3363	SGA-3386	
SGA-34	2.9	35	DC-2.8	+12.0	+24.3	21.3	18.8	2.7	SGA-3463	SGA-3486	
SGA-35	3.4	35	DC-5.0	+13.5	+24.9	25.6	20.6	2.5	SGA-3563	SGA-3586	
SGA-41	3.2	45	DC-6.0	+13.8	+29.0	10.0	9.5	4.8	SGA-4163	SGA-4186	
SGA-42	3.2	45	DC-3.5	+14.6	+29.2	13.5	12.4	3.6	SGA-4263	SGA-4286	
SGA-43	3.2	45	DC-3.0	+14.8	+28.8	17.0	14.7	2.8	SGA-4363	SGA-4386	
SGA-44	3.2	45	DC-2.0	+14.7	+27.6	19.0	16.5	2.6	SGA-4463	SGA-4486	
SGA-45	3.6	45	DC-4.0	+16.5	+28.6	24.1	18.6	1.7	SGA-4563	SGA-4586	
SGA-52	3.4	60	DC-4.5	+16.4	+31.4	13.1	12.4	4.2	SGA-5263	SGA-5286	SGA-5289
SGA-53	3.6	60	DC-3.2	+16.7	+31.8	16.8	15.4	3.4		SGA-5386	SGA-5389
SGA-54	3.4	60	DC-3.2	+16.5	+31.4	19.3	17.1	3.0		SGA-5486	SGA-5489
SGA-55	3.9	60	DC-4.0	+18.2	+32.3	23.8	20.0	2.8		SGA-5586	SGA-5589
SGA-62	4.0	75	DC-4.5	+18.5	+34.7	14.0	12.5	4.4		SGA-6286	SGA-6289
SGA-63	4.9	80	DC-4.5	+20.6	+35.6	15.5	14.0	4.3		SGA-6386	SGA-6389
SGA-64	5.1	75	DC-2.6	+20.9	+34.2	20.0	16.5	3.2		SGA-6486	SGA-6489
SGA-65	4.9	80	DC-3.3	+21.5	+33.2	24.7	19.5	2.6		SGA-6586	SGA-6589
SGA-74	5.0	130	DC-3.0	+22.4	+36.0	22.0	18.3	2.9			SGA-7489

SGL Series, SiGe Low Noise Amplifiers

The new SGL series are SiGe LNAs (Silicon Germanium Low Noise Amplifiers) packaged in low-cost SOT-363 plastic packages. Featuring noise figures as low as 1.1 dB at 900 MHz, these devices serve as LNA stages in infrastructure equipment or ISM band applications.

Part Number	Bandwidth (MHz)	Vd (V)	Id (mA)	Freq (GHz)	P1dB (dBm)	Input IP_3 (dBm)	Gain (dB)	NF (dB)	Package
SGL-0163	800-1000	3.0	11	900	+5.0	+6.4	15.0	1.1	SOT-363
		4.0	25	900	+11.0	+11.8	15.7	1.5	SOT-363
SGL-0263	1800-2500	3.0	11	1900	+4.8	+7.3	14.0	1.3	SOT-363
		3.0	11	2400	+6.0	+10.6	11.4	1.8	SOT-363
		4.0	23	1900	+10.6	+11.9	14.5	1.7	SOT-363
		4.0	23	2400	+11.1	+15.2	12.0	2.3	SOT-363

Typical specifications at 850 MHz unless otherwise specified.

NGA Series, Broadband InGaP/GaAs HBT MMICs

Sirenza Microdevices' NGA series are designed with InGaP/GaAs (Gallium Indium Phosphide/Gallium Arsenide) process technology for greater reliability and performance. These devices feature reduced junction temperatures, allowing higher MTTF ratings. High gain and high output make these heterojunction bipolar transistor MMIC amplifiers ideal for use in all wireless and broadband communications applications.

Part Number	Vd (V)	Id (mA)	Freq (GHz)	P1dB[1] (dBm)	Output[1] IP_3 (dBm)	Gain (dB)	NF (dB)	Package Styles 86	89
NGA-1	4.1	50	0.1-8.0	+14.7	+31.7	12.0	4.0	NGA-186	
NGA-2	4.0	50	0.1-6.0	+15.0	+31.2	15.0	3.4	NGA-286	
NGA-3	4.0	35	0.1-4.0	+15.0	+27.0	19.0	2.7	NGA-386	
NGA-486	4.8	80	0.1-5.0	+18.2	+34.0	14.1	4.0	NGA-486	
NGA-489	4.0	65	0.5-10.0	+17.0	+37.0	14.5	4.0		NGA-489
NGA-5[2]	4.9	80	0.1-5.5	+18.6	+34.0	18.8	3.6	NGA-586	NGA-589
NGA-6	5.9	80	0.1-4.0	+19.2	+35.0	11.0	6.1	NGA-686	NGA-689*

[1] All data measured at 2 GHz. [2] Data displayed is 89 version.
* Indicates preliminary or advance information status.

SNA Series, Broadband GaAs HBT MMICs

The SNA series from Sirenza Microdevices' are broadband GaAs HBT (Gallium Arsenide Heterojunction Bipolar Transistor) monolithic microwave integrated circuits (MMICs) housed in low-cost surface mountable plastic and ceramic packages. These amplifiers provide high output intercept point, high gain, low noise figure and low power consumption. External DC decoupling capacitors determine low frequency response and the use of an external resistor allows for bias flexibility and stability.

Part Number	Vd (V)	Id (mA)	3dB BW (GHz)	P1dB (dBm)	Output IP_3 (dBm)	Gain@ 1GHz (dB)	Gain@ 2GHz (dB)	NF[1] (dB)	Package Styles 76	86	89
SNA-1	4.0	50	10.0	+13.0	+26.0	12.5	12.0	6.0	SNA-176	SNA-186	SCA-5, SCA-15
SNA-2	4.0	50	6.5	+14.0	+27.0	12.8	12.4	5.5	SNA-276	SNA-286	SCA-6, SCA-16
SNA-3	4.0	35	3.0	+10.0	+23.0	23.0	22.0	4.0	SNA-376	SNA-386	SCA-7, SCA-17
SNA-4[2]	5.0	65	6.5	+17.0	+31.0	14.0	13.0	5.0		SNA-486	SCA-3, SCA-13
SNA-5[2]	5.0	65	5.0	+18.0	+32.0	20.0	18.0	4.0		SNA-586	SCA-4, SCA-14
SNA-6[2]	5.3	65	6.0	+18.0	+32.0	11.0	11.0	7.3		SNA-686	SCA-2, SCA-12

[1] Data measured at 2 GHz. [2] Not recommended for new designs, see NGA and SGA alternatives.

IF Amplifiers NEW

Sirenza Microdevices offers a variety of gain blocks excellent for use as IF amplifiers in the 50-200 MHz range. With Output IP3 as high as +38 dBm, these components are ideal for use in multi-carrier and digital applications. Typical performance data at 100 MHz is highlighted here:

Part Number	Vd (V)	Id (mA)	Freq (MHz)	P1dB (dBm)	Output IP3 (dBm)	Gain (dB)	NF (dB)	Package Style 63	86	89
SGA-45	3.6	45	100	15.7	27.0	28.7	1.9	SGA-4563	SGA-4586	
SGA-52	3.4	60	100	16.1	33.6	13.6	3.9	SGA-5263	SGA-5286	SGA-5289
SGA-65	4.8	80	100	21.0	32.0	28.0	2.5			SGA-6589
SGA-74	5.0	130	100	22.8	38.6	23.7	2.9			SGA-7489

SGA-8, -9 Series, SiGe Transistor Amplifiers

Sirenza Microdevices' SGA-8 and SGA-9 series are low-cost, high performance SiGe HBT transistors that use off-chip matching for maximum flexibility. The SGA-8 series features low noise with Fmin as low as 0.9 dB. It also offers high gain and excellent linearity at low DC powers. The SGA-9 series is for higher powered applications with linearity requirements up +42 dBm OIP3.

Part Number	Vd (V)	Id (mA)	Freq (GHz)	P1dB (dBm)	Output IP_3 (dBm)	Gmax @ 0.9 GHz (dB)	Gmax @ 1.9 GHz (dB)	Fmin @ 0.9 GHz (dB)	Package
SGA-8343	3.0	20	DC-6.0	+13	+28.5	23.9	19.3	0.9	SOT-343

Performance at 1.9 GHz unless otherwise indicated. External matching required, see application note.

Part Number	Vd (V)	Id (mA)	Freq (GHz)	P1dB (dBm)	Output IP_3 (dBm)	Gain @ 0.9 GHz (dB)	Gain @ 1.96 GHz (dB)	NF @ 0.9 GHz (dB)	Package
SGA-9189	5.0	180	DC-3.0	+26.0	+39.0	18.5	11.7	2.5	SOT-89
	3.0	165	DC-3.0	+22.5	+36.0	18.0	11.8	2.1	SOT-89
SGA-9289	5.0	270	DC-3.0	+27.5	+43.0	18.0	11.3	2.6	SOT-89
	3.0	315	DC-3.0	+26.0	+39.0	17.0	11.0	2.5	SOT-89

Typical device performance at 1.96 GHz unless otherwise noted. External matching required, see application notes.

SHF Series, High Linearity 1/2W to 2W Power FETs

Sirenza Microdevices' SHF series are AlGaAs/GaAs FET power amplifiers, packaged in low-cost plastic surface mountable packages. When properly matched, these transistors provide output power levels from +27 dBm to 12 GHz and +34 dBm at 3 GHz. With ultra-linear performance, these power FETs are ideal for subscriber products and/or driving higher power amplifiers.

Part Number	Vd (V)	Id (mA)	Frequency (GHz)	P1dB (dBm)	Output IP_3 (dBm)	Gain (dB)	NF (dB)	Package
SHF-0186	8.0	100	.05-12.0	+28.0	+40.5	18.5	3.1	86
SHF-0186K	8.0	100	.05-6.0	+28.0	+40.5	18.5	3.1	86
SHF-0189	8.0	100	.05-6.0	+27.0	+40.0	18.5	4.7	SOT-89
SHF-0289	8.0	250	.05-6.0	+31.0	+46.0	16.0	4.6	SOT-89
SHF-0589	8.0	500	.05-3.0	+34.0	+48.0	15.5	3.7	SOT-89

Typical device performance at 900 MHz unless otherwise indicated. External matching required, see application note.

SPF Series, Ultra Low Noise Figure, High Linearity FETs

Sirenza Microdevices' SPF series are ultra-low noise Pseudomorphic High Electron Mobility Transistor (PHEMT) FETs, packaged in low parasitic, plastic surface mountable packages. When properly matched, these transistors will provide typical noise figures as low as 0.5 dB at 4 GHz. With ultra-linear performance, these FETs are ideal for subscriber products and/or driving higher power amplifiers.

Part Number	Vd (V)	Id (mA)	Frequency (GHz)	P1dB[2] (dBm)	Output IP_3[2] (dBm)	G_{MAX}[1] (dB)	NF_{MIN}[1] (dB)	Package
SPF-3043	3.0	20	DC-10.0	+15.5	+29.0	25.5	0.50	SOT-343
	5.0	40	DC-10.0	+20.0	+32.0	26.5	0.55	SOT-343
SPF-2086T	3.0	20	0.1-12.0	+15.0	+28.0	21.8	0.40	86
	5.0	40	0.1-12.0	+20.0	+32.0	23.0	0.55	86
SPF-2086TK	3.0	20	0.1-6.0	+15.0	+28.0	21.8	0.40	86
	5.0	40	0.1-6.0	+20.0	+32.0	23.0	0.55	86

[1] NF_{OPT} and Gain are specified with the FET matched to Γ_{OPT}.
[2] P1dB and IP3 are specified with the FET matched to optimize these parameters.
Typical device performance at 1.9 GHz. External matching required, see application notes.

SX Series, High Linearity GaAs HBT Power Amplifiers

Sirenza Microdevices' SX series are GaAs HBT (Gallium Arsenide Heterojunction Bipolar Transistor) amplifiers housed in low-cost surface mountable SOT-89 packages. These amplifiers provide high gain, high output intercept point and low power consumption. They are specially designed for use as driver devices for infrastructure equipment in the 50-2500 MHz Cellular, PCS, CDMA, WCDMA, UMTS and ISM bands. Their high linearity makes them an ideal choice for multi-carrier as well as digital applications.

Part Number	Vd (V)	Id (mA)	Freq (MHz)	P1dB (dBm)	Output IP_3 (dBm)	Gain @ 850 MHz (dB)	Gain@ 1950 MHz (dB)	Gain@ 2450 MHz (dB)	NF (dB)	Package
SXA-289	5.0	110	5-2000	+24.0	+42.0	20.5	15.5		5.0	SOT-89
SXT-289	5.0	110	1800-2500	+24.0	+41.0[1]		15.0	13.8	5.0	SOT-89
Advance Information - New Products in Development NEW										
SXA-389	5.0	120	400-2200	+25.0	+42.0	19.5	14.0	13.0	5.5	SOT-89

[1] Data measured at 2140 MHz and is typical of device performance.

SPA Series, GaAs Power Amplifiers

Sirenza Microdevices' SPA amplifiers are GaAs HBT amplifiers providing excellent Adjacent Channel Power performance. Output IP3 is extremely high for a GaAs MMIC, typically +48 dBm. The SPA series is packaged in a cost-effective, 8-pin standard outline plastic package with back-side metallization for proper heat sinking. As power amplifier drivers, these are excellent for use in CDMA, WCDMA, GSM and UMTS systems.

Part Number	Frequency (MHz)	P1dB (dBm)	ACPR (dBm)	IP3 (dBm)	Gain (dB)	Supply Voltage (V)	Current (mA)	Package
SPA-1118	810-960	+29.5	+23*	+48	17.0	5	320	ESOP-8
SPA-1218	1930-1990	+29.5	+23*	+48	12.0	5	320	ESOP-8
SPA-1318	2110-2170	+29.5	+21**	+48	11.5	5	320	ESOP-8
Advance Information - New Products in Development NEW								
SPA-2118	810-960	+30.5	+24*	+48	32.5	5	400	ESOP-8
SPA-2318	1800-2200	+30	+23.5*, +21.5**	+47	23.0	5	400	ESOP-8

* Output power at ACP = −45 dBc, IS-95 modulation: 9 channels forward ** Output power at ACP = −45 dBc, W-CDMA modulation: 64 DPCH + overhead channels.

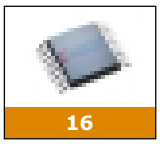
CATV Amplifiers

This developing line is adapted for CATV requirements using a variety of technologies, including SiGe and GaAs HBT. All products are characterized for 75 ohm applications with excellent gain flatness up to 1000 MHz. Push-pull products are also in development providing optimal CSO, CTB and IP2 performance.

Part Number	P1dB (dBm)	Gain @ 500 MHz (dB)	Vd (V)	Id (mA)	Output IP_2 (dBm)	Output IP_3 (dBm)	CSO (dB)	CTB (dB)	XMOD (dB)	Package
Dual Devices, Push-Pull Performance										
CGA-3318	+20.0	12.5	4.3	150	+68.0	+38.0	-70	-68	-63	ESOP-8
CGA-6618	+20.0	14.0	4.3	160	+72.0	+40.0	-81	-70	-65	ESOP-8
	Push-Pull CSO/CTB/XMOD Tested with 79 channels, +34dBmV/Tone									

* All devices characterized over 5-1000 MHz band with 75 Ohm input and output. ** 18 Package: SOIC-8 with backside metallization.

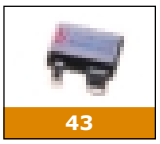
Packages Available



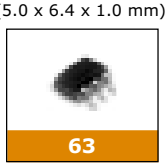
♦ TSSOP16 Plastic Package
w/exposed ground paddle
0.197" x 0.252" x 0.039"
(5.0 x 6.4 x 1.0 mm)

♦ ESOP-8 Plastic Package
w/exposed ground paddle
0.194" x 0.236" x 0.061"
(4.9 x 6.0 x 1.6 mm)

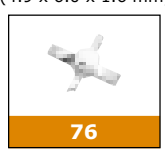
♦ Ceramic SMT Module
0.272" x 0.394" x 0.096"
(6.9 x 10.0 x 2.4 mm)



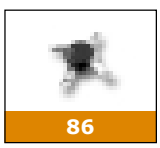
♦ SOT-343
0.08" x 0.08" x 0.035"
(2.0 x 2.0 x 0.09 mm)



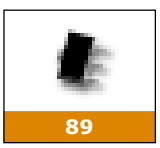
♦ SOT-363
0.08" x 0.08" x 0.035"
(2.0 x 2.0 x 0.09 mm)



♦ Ceramic
0.070" dia. (1.78 mm dia.)



♦ Plastic 0.085"
0.085" dia. (2.15 mm dia.)



♦ SOT-89
0.180" x 0.165" x 0.067"
(4.55 x 4.20 x 1.7 mm)

Advance Information

Wireless Infrastructure Products NEW

Sirenza Microdevices introduces a new wireless infrastructure RFIC & module family consisting of six products covering DC to 4 GHz. All SiGe RFIC products are packaged in a 16-pin TSSOP plastic package with exposed pad ("16" style pkg.) for excellent RF & thermal grounding. The PHEMT LNA module is housed in a reliable ceramic SMT package. Please visit our web site for advanced product data sheet specifications. Samples and pre-production quantities available now. Production release Q4 2001. For applications questions, please contact wip-apps@stanfordmicro.com.

SRM Series, SiGe Active Receive Mixer RFIC

The SRM product family includes two high-linearity active mixers for use in a wide variety of communication systems covering three common infra-structure frequency bands. Each device provides conversion gain, while requiring only 0 dBm input to the integrated LO driver and a single +5 Vdc bias.

Part Number	Vcc (V)	Icc (mA)	RF/LO (GHz)	IF (MHz)	Input P1dB (dBm)	Input IP3 (dBm)	Gain (dB)	SSB NF (dB)	LO-RF Leakage (dB)
SRM-1016	5	150	0.8 - 1.0	10 - 300	+5	+20	10	15	–40
SRM-2016	5	152	1.7 - 2.3	30 - 300	+3	+16	12	14	–60

SRF Series, SiGe IF Receiver/Demodulator RFIC with 3-Step Gain Control

The SRF product family provides multipurpose demodulator capability for both quadrature demodulation or direct IF output. Each device features 40 dB of switchable gain control, high input P1dB, and excellent I/Q amplitude and phase balance.

Part Number	Vcc (V)	Icc (mA)	RF/LO (MHz)	IF (MHz)	Input P1dB (dBm)	Input IP3 (dBm)	Gain Steps (dB)	SSB NF (dB)
SRF-1016	5	180	65 - 300	DC - 500	+10	+20	–5	30
					–10	0	+15	10
					–30	–20	+35	6

STQ Series, SiGe Direct Quadrature Modulator RFIC with Shutdown Feature

The STQ product family includes two direct quadrature modulators targeted for use in a wide range of communications systems. Each device features a wide operating frequency band, tight phase (± 2 deg) and amplitude (± 0.2 dB), excellent carrier/sideband suppression and low broadband noise floor. A shutdown feature is included that, when enabled, attenuates the output by 60 dB.

Part Number	Vcc (V)	Icc (mA)	RF/LO (GHz)	Baseband (MHz)	Output P1dB (dBm)	Carrier Feedthru (dBm)	Sideband Suppression (dB)	Broadband Noise Floor (dBm/Hz)
STQ-2016	5	75	0.7 - 2.5	DC - 1000	+3	–40	40	–154
STQ-3016	5	75	2.5 - 4.0	DC - 1000	+1	–40	33	–153

SLX Series, PHEMT Low-Noise Amplifier Module

The SLX-2043 is a 1700-2500 MHz low-noise amplifier module optimized to serve high-linearity infrastructure applications where a high input intercept point is required with low noise figure. The SLX-2043 utilizes internal bias circuitry and proven ceramic module technology to yield a high-performance, reliable product. Internal RF matching is included on both the input and output to provide an easy to implement, unconditionally stable, 50 ohm circuit block.

Part Number	Vd (V)	Id (mA)	Frequency (GHz)	P1dB (dBm)	OIP3 (dBm)	Gain (dB)	NF (dB)	Input VSWR	Output VSWR
SLX-2043	4	105	1.7 - 2.5	+19	34	15	1.1	1.8:1	1.8:1

Application Notes Available

AN-010: SGA-2486 Gain Flatness Compensation Circuit

AN-011: SXT Balanced Amplifier Configuration (Circuit demonstrates +43dBm OIP_3 from 1.8 to 2.5 GHz with 15dB gain)

AN-012: SGA-6589 Wideband (50-1000 MHz) Driver Circuit

AN-018: Replacing the SNA-586 amplifier with NGA-586

AN-020: SHF-0186K Amplifier Circuits

AN-021: SGA-9189 Amplifier Application Circuit

AN-022: SGA-9289 Amplifier Application Circuit

AN-023: SXA/SXT New Bias Circuit

AN-024: SXA/SXT-289 New Bias Circuit

Application Notes Available

AN-025: Push-Pull, High IP_2 Amplifiers

AN-026: SXA/T-289 Active Bias Circuit

AN-027: Calculating Junction Temperature

AN-029: Special Handling for exposed pad SOIC-8 products

AN-031: SHF-0189 Application Circuit

AN-032: SHF-0289 Application Circuit

AN-033: SHF-0589 Application Circuit

AN-035: Active bias circuits

AN-037: ESD Overview and Handling Precautions

Visit our website or contact factory for details

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