BEREX

RF Signal Management Solutions

Product Selection Guide

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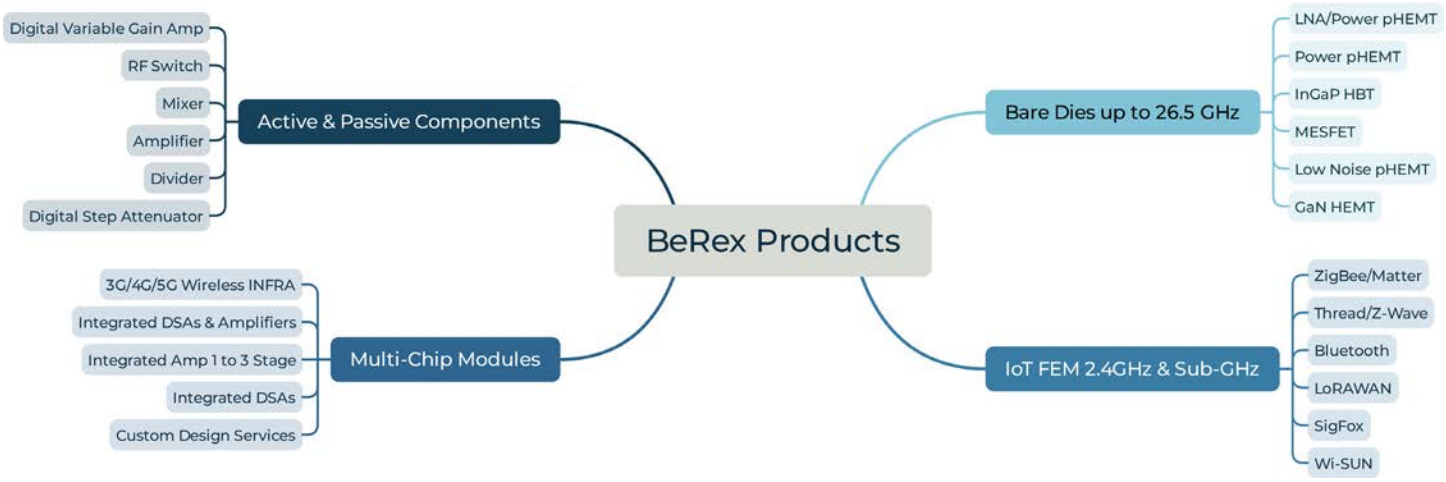
Extensive Selection of Radio Frequency Solutions

For over two decades, BeRex has been at the forefront of innovation in MMICs and RF electronic components. Offering a comprehensive range of solutions spanning DC to 27 GHz, BeRex specializes in advanced RF processes such as SiGe, SOI, GaAs, and InGaP. Combined with cutting-edge assembly and packaging techniques, this expertise enables the production of world-class amplifiers, digitally switched attenuators, RF switches, pHEMTs, HBTs, and FEMs.

Product Families



Applications

Military & Aerospace

- Broadband multi-channel communication
- Localization and surveillance
- Die offerings for customized solutions using power pHEMT, low-noise pHEMT, MESFET, and GaN devices

Cellular Infrastructure

- Repeater & Amplifiers
- Base Stations (5G, LTE-A, W-CDMA, TS-CDMA, GSM)
- Micro and Pico Cells
- Wireless Broadband and Wi-Max

Automotive Electronics

- Advanced Passive Entry Passive Start (PEPS) and other V2X applications
- Accurate position location using High Accuracy Distance Measurements (HADM)
- AEC-Q100 qualified RF switches and attenuators

Smart Home

- Bluetooth© LE & Bluetooth© EDR, Channel Sounding
- ZigBee™, Z-Wave®, Thread, Weightless, SigFox®
- Wireless Speakers, Baby Monitors, Gaming Consoles, Drones, IoT Modules, Wearables

Industrial Automation

- Wireless communication for remote sensing and control
- RF signal conditioning for greater reliability in noisy environments
- Multi-pole switches for antenna diversity and multi-path communication

Smart City

- LoRaWAN®, Wi-SUN, WPAN, LPWAN
- Metering, Lighting, and Energy Management
- Machine to Machine (M2M) Communication
- Building Automation

Front End Module (FEM) Solutions

BeRex provides an extensive selection of sub-GHz and 2.4 GHz front-end modules in multiple configurations. These modules integrate power amplifiers (PA), low-noise amplifiers (LNA), bypass options, and antenna switching. They feature low insertion loss and are meticulously optimized for low noise, high transmit power, and battery-operated applications.

Sub-GHz Products

Part Number	Cross Reference Part Number	Configuration	Frequency	TX Gain	Saturated Output Power	TX Current	RX Gain	RX NF	RX Current	Bypass Loss	Supply Voltage	Samples
			MHz	dB	dBm	mA	dB	dB	mA	dB	V	
8TR1111	RFX1010	PA, Bypass SW, PDET ANTx1	850-930	34	24.0	260	-	-	-	1.7	1.8-3.6	Available
8TR9110	SKY66421-11	PA, Bypass SW, ANTx1	830-940	16	27.0	320	-	-	-	0.6	2.5-4.5	2Q25
8TR9111	-	PA, LNA, Bypass SW, ANTx1	830-940	29	27.0	260	18	1.5	5	RX 1.0, TX 1.3	2.5-4.5	3Q26
8TR6110	SKY66420	PA, LNA, TX Bypass, SW, ANTx1	843-964	16	27.5	280	18	1.5	5	1.5	2.2-4.0	2Q26
8TR6113	RFX1010, KCT8101L, FCF500	PA, LNA, PDET, SW, ANTx1	843-964	28	27.0	318	14	1.5	10	-	2.2-4.0	4Q25

2.4 GHz Products

Part Number	Cross Reference Part Number	Configuration	Frequency	TX Gain	Saturated Output Power	TX Current	RX Gain	RX NF	RX Current	Bypass Loss	Supply Voltage	Samples
			MHz	dB	dBm	mA	dB	dB	mA	dB	V	
8TR2211	RF2374	LNA, Bypass SW	2400-2500	-	-	-	13.0	2	7.0	1.8	1.8-3.6	Available
8TR1218	SKY66111-11	PA, Bypass SW, ANTx1	2400-2500	9.0	10.0	18.0	-	-	-	2.5	1.8-3.6	Available
8TR1219	SKY66111-11 SKY66407-11	PA, Bypass SW, ANTx1	2400-2500	10.0	11.0	18.0	-	-	-	2.8	1.8-3.6	Available
8TR1215	-	PA, Bypass SW, ANTx1	2400-2500	12.0	11.0	17.0	-	-	-	2.4	1.5-2.3	Available
8TR1212	SKY6111-11, SKY66110-11, SKY66407-11	PA, Bypass SW, ANTx1	2400-2485	13.8	10.6	10.3	-	-	-	1.4	2.2-4.0	Available
8TR8211	SKY66404-11 SKY66405-11	PA, LNA, Bypass SW, ANTx1	2400-2500	11.0	13.0	23.0	13.0	2.3	9.0	2.6	1.8-3.6	Available
8TR8211C	SKY66404-11 SKY66405-11	PA, LNA, Bypass SW, ANTx1	2400-2525	11.0	13.0	25.0	9.0	3.1	3.5	2.6	1.8-3.6	Available
8TR1241	-	PA, LNA, Bypass SW, PDET, ANTx4	2400-2485	11.0	14.0	17.0	-	-	-	3.0	1.8-4.0	2Q26
8TR8241	-	PA, Bypass SW, PDET, ANTx4	2400-2485	11.0	14.0	17.0	14.0	2.3	9.5	3.0	1.8-4.0	2Q26
8TR1211	SKY66118-11, SKY65337-11, RFX2411, SKY66407-11	PA, Bypass SW, ANTx1	2400-2500	14.0	15.0	23.0	-	-	-	2.1	1.8-3.6	Available
8TR8213	RFX2402, SKY66404-11, RT202	PA, LNA, Bypass SW, ANTx1	2400-2485	16.0	16.0	33.0	16.0	1.8	6.0	1.7	1.4-4.0	2Q25
8TR8210	RFX2411	PA, LNA, Bypass SW, ANTx1	2400-2500	23.0	20.0	85.0	12.0	2.5	8.0	2.7	1.8-3.6	Available
8TR8201	RFX2401C,RT201, SKY66403-11, SKY66114-11, AT2401C	PA, LNA, SW, ANTx1	2400-2500	24.0	21.0	85.0	12.0	2.5	8.0	-	1.8-3.6	Available
8TR8223	SKY66112-11, RT201, RFX2411N SE2431L, SKY66114-11	PA, LNA, Bypass SW, ANTx2	2400-2485	24.5	22.5	143	16.5	2.0	10	1.8	2.2-4.0	2Q25
8TR8202	RFX2402,RFX2402E, RT202	PA, LNA, RX Bypass SW, ANTx1	2400-2500	32.0	23.0	108	12.0	3.0	8.5	3.5	1.8-3.6	Available
8TR8218	RFX2401C	PA, LNA, Bypass SW, ANTx1	2400-2485	24.0	23.0	160	19.0	1.6	12	1.7	2.2-4.0	Available
8TR8219	RFX2401C	PA, LNA, Bypass SW, ANTx1	2400-2485	24.0	23.0	160	16.5	1.9	5.5	1.7	2.2-4.0	Available
8TR8220	RFX2402, RFX2401, RT202	PA, LNA, RX Bypass SW, ANTx2	2400-2500	30.0	23.0	150	11.0	2.7	9.0	2.5	1.8-3.6	Available
8TR8217	RFX2401C	PA, LNA, SW, ANTx1	2400-2485	24.0	23.0	160	19.0	1.6	12	-	2.2-4.0	Available

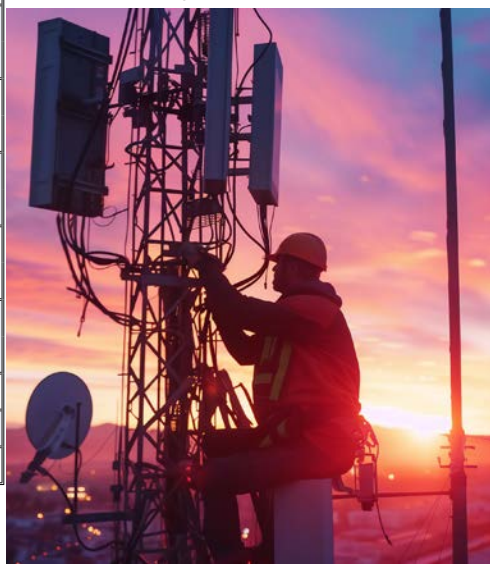
Low Noise Amplifiers

BeRex has developed a comprehensive range of low-noise amplifiers featuring internal bandwidths from 40 to 8000 MHz and internal matching to 50Ω. These amplifiers support 3.0V and 5.0V operations and offer rapid shutdown capabilities for Time Division Duplexing (TDD) systems. All products are available in SOT89, SOT363, and DFN8 RoHS2-compliant packages.

Part Number	Bandwidth	Frequency	G_S	P1dB	OIP3/Tone		NF	V_{DD}	I_{DD}	Package
	MHz	MHz	dB	dBm	dBm		dB	V	mA	
BL022A	50-6000	1900	19.0	22.0	35.5	5	1.5	5.0	70	SOT89
BL083	50-4000	1850	15.6	17.7	31.5	0	0.8	3.0	42	SOT363
BNT01	1500-3000	1900	15.5	22.0	37.0	5	1.6	4.4	68	SOT89
BNT02	40-6000	3500	17.5	19.6	37.5	5	1.5	5.0	85	SOT89
			16.7	16.0	31.1		1.5	3.3	48	
BLB01	50-1500	700	22.5	21.1	37.5	0	0.4	5.0	66	DFN8 2X2
			21.4	16.9	31.0		0.4	3.0	27	
BLB02	1500-2700	1950	18.1	19.5	36.8	0	0.8	5.0	60	DFN8 2X2
			17.7	15.8	30.0		0.7	3.0	35	
BLB03	1500-4000	2650	18.0	21.0	35.8	0	0.7	5.0	49	DFN8 2X2
			17.0	16.6	30.3		0.7	3.0	44	
BLB04	2500-5000	3500	18.0	18.7	33.0	0	0.6	5.0	49	DFN8 2X2
			17.8	15.5	34.5		0.6	3.3	44	
BLB28	2500-7000	4900	20.7	19.6	31.5	0	0.8	5.0	52	DFN8 2X2
BNT21	50-6000	3500	18.0	19.0	37.0	5	1.5	5.0	83	DFN8 2X2
BNT22	500-8000	3500	20.5	19.5	34.0	5	1.9	5.0	90	DFN8 2X2

Applications:

- Repeater and Base Station Infrastructure
- Defense & Aerospace
- LTE, WDCMA, EDGE, CDMA, 5G NR
- General Purpose Wireless



SOT363 & SOT343 Gain Block Amplifiers

BeRex provides a series of Gain Block Amplifiers optimized for industry-standard SOT363 and SOT343 RoHS2-compliant packages. These amplifiers exhibit internal bandwidths spanning from 30 MHz to 5000 MHz and incorporate internal 50Ω matching. Leveraging high-reliability InGaP and GaAs HBT technologies, these devices deliver exceptional performance and reliability. They feature extremely low power consumption, making them ideal for high-efficiency applications.

Part Number	Bandwidth	Frequency	G_S	P1dB	OIP3/Tone		NF	V_{DD}	I_{DD}	Package
	MHz	MHz	dB	dBm	dBm		dB	V	mA	
BGS1	50-4000	900	22.2	16.7	26	0	2.9	3.2	26	SOT363
BGS2	50-4000	900	23.6	13.4	25.5	0	2.3	3.0	34	SOT363
BGS3	30-5000	900	25.4	17.4	30.5	0	1.7	3.0	52	SOT363
BGS4	50-4000	1900	14.6	18.8	30.0	0	2.1	3.3	26	SOT363
BGS5	40-5000	900	16.5	16.2	31.5	0	2.5	3.0	52	SOT363
BGS6	50-4000	900	21.8	17.0	26.1	0	2.9	3.3	27	SOT343
BGH5	40-6000	3500	14.0	14.0	26.0	0	3.3	3.3	50	SOT363
BGE02	30-4000	3500	17.4	17.7	34.5	0	1.9	3.3	69	SOT363

Applications:

- Repeater and Base Station Infrastructure
- Defense & Aerospace
- LTE, WDCMA, EDGE, CDMA, 5G NR
- General Purpose Wireless
- IF amplifier, RF drive amplifier

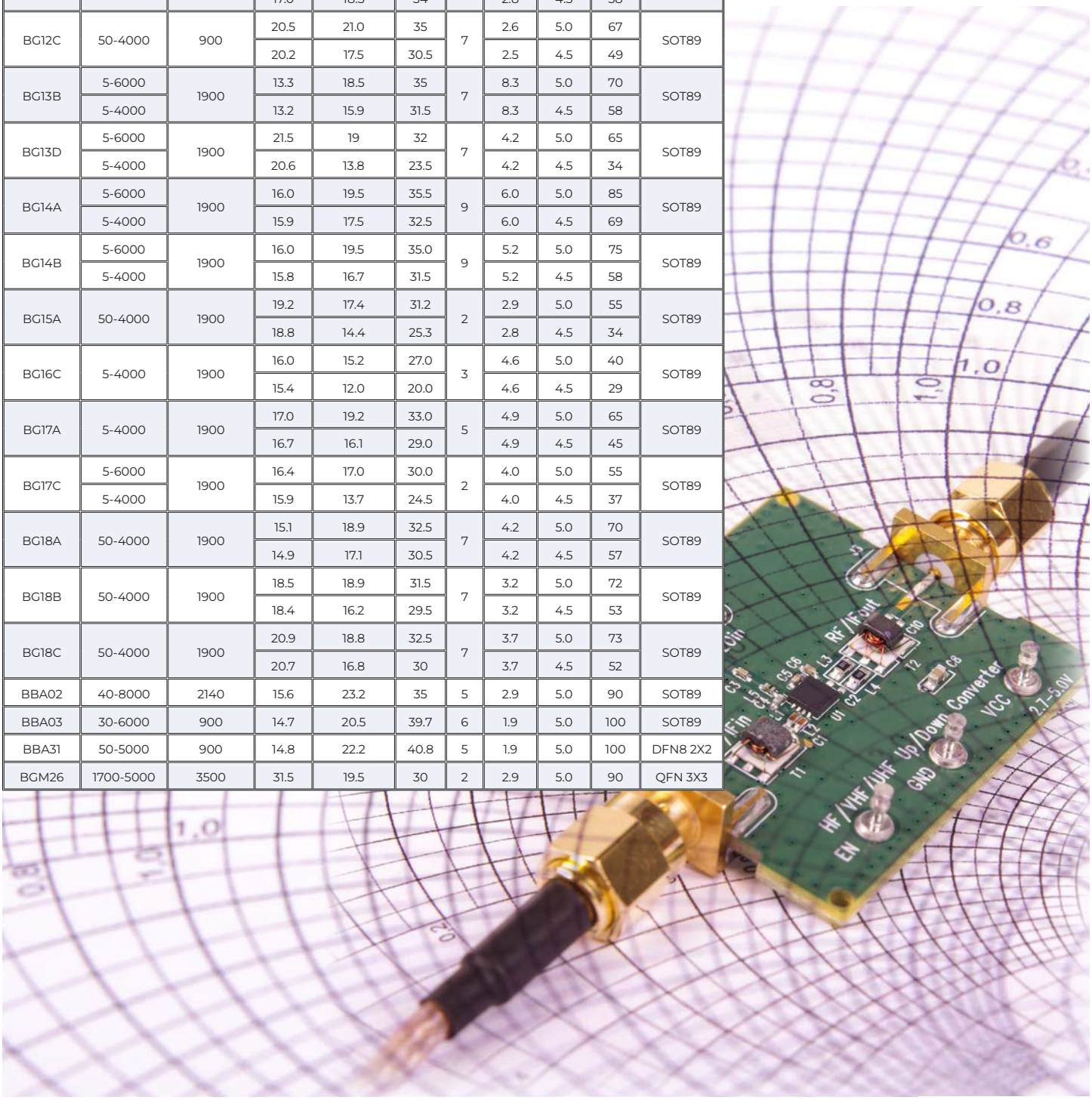
Wide Band Gain Block Amplifiers

BeRex presents a versatile lineup of Wide-Gain Block Amplifiers, perfect for tackling the RF engineer's toughest challenges. These cutting-edge, low-noise amplifiers boast internal bandwidths from 30 to 5000 MHz and 50Ω internal matching. Engineered with high-reliability InGaP and GaAs HBTs, they feature patented temperature compensation and over-voltage protection circuitry, ensuring unmatched performance and reliability. Available in SOT89, DFN8, and QFN RoHS2-compliant packages, these amplifiers are ready to elevate your designs to the next level.

Part Number	Bandwidth	Frequency	G_s	P1dB	OIP3/Tone		NF	V_{DD}	I_{DD}	Package
	MHz	MHz	dB	dBm	dBm		dB	V	mA	
BG11C	50-4000	1900	20.8	17.3	30	6	4.0	5.0	48	SOT89
			20.5	14.3	26		3.9	4.5	35	
BG12B	50-4000	900	17.1	20.9	37	5	2.9	5.0	77	SOT89
			17.0	18.5	34		2.8	4.5	58	
BG12C	50-4000	900	20.5	21.0	35	7	2.6	5.0	67	SOT89
			20.2	17.5	30.5		2.5	4.5	49	
BG13B	5-6000	1900	13.3	18.5	35	7	8.3	5.0	70	SOT89
	5-4000		13.2	15.9	31.5		8.3	4.5	58	
BG13D	5-6000	1900	21.5	19	32	7	4.2	5.0	65	SOT89
	5-4000		20.6	13.8	23.5		4.2	4.5	34	
BG14A	5-6000	1900	16.0	19.5	35.5	9	6.0	5.0	85	SOT89
	5-4000		15.9	17.5	32.5		6.0	4.5	69	
BG14B	5-6000	1900	16.0	19.5	35.0	9	5.2	5.0	75	SOT89
	5-4000		15.8	16.7	31.5		5.2	4.5	58	
BG15A	50-4000	1900	19.2	17.4	31.2	2	2.9	5.0	55	SOT89
			18.8	14.4	25.3		2.8	4.5	34	
BG16C	5-4000	1900	16.0	15.2	27.0	3	4.6	5.0	40	SOT89
			15.4	12.0	20.0		4.6	4.5	29	
BG17A	5-4000	1900	17.0	19.2	33.0	5	4.9	5.0	65	SOT89
			16.7	16.1	29.0		4.9	4.5	45	
BG17C	5-6000	1900	16.4	17.0	30.0	2	4.0	5.0	55	SOT89
	5-4000		15.9	13.7	24.5		4.0	4.5	37	
BG18A	50-4000	1900	15.1	18.9	32.5	7	4.2	5.0	70	SOT89
			14.9	17.1	30.5		4.2	4.5	57	
BG18B	50-4000	1900	18.5	18.9	31.5	7	3.2	5.0	72	SOT89
			18.4	16.2	29.5		3.2	4.5	53	
BG18C	50-4000	1900	20.9	18.8	32.5	7	3.7	5.0	73	SOT89
			20.7	16.8	30		3.7	4.5	52	
BBA02	40-8000	2140	15.6	23.2	35	5	2.9	5.0	90	SOT89
BBA03	30-6000	900	14.7	20.5	39.7	6	1.9	5.0	100	SOT89
BBA31	50-5000	900	14.8	22.2	40.8	5	1.9	5.0	100	DFN8 2X2
BGM26	1700-5000	3500	31.5	19.5	30	2	2.9	5.0	90	QFN 3X3

Applications:

- Repeater and Base Station Infrastructure
- Defense & Aerospace
- LTE, WDCMA, EDGE, CDMA, 5G NR
- General Purpose Wireless
- IF amplifier, RF drive amplifier



Wide-Band Drive & Medium Power Amplifiers

BeRex has engineered an extensive portfolio of wide-band drive and medium power amplifiers, featuring internal bandwidths ranging from 5 MHz to 4000 MHz. These 5V devices incorporate high-reliability InGaP and GaAs HBT technologies, necessitating minimal external components for impedance matching. All products are housed in SOT89 RoHS2-compliant packages, ensuring adherence to stringent environmental standards.

Part Number	Bandwidth	Frequency	G_S	P1dB	OIP3/Tone		NF	V_{DD}	I_{DD}	Package
	MHz	MHz	dB	dBm	dBm		dB	V	mA	
BT05CV	5-4000	900	21.5	23.9	43.5	9	4.4	5.0	85	SOT89
BT05VG	1500-4000	1900	18.0	22.5	39.0	10	4.6	5.0	85	SOT89
BT05VG2	1500-4000	1900	19.0	22.7	40.5	11	3.9	5.0	88	SOT89
BT09AG	5-4000	900	20.0	24.5	43.0	14	4.2	5.0	160	SOT89
BT09VG	5-4000	1900	15.5	25.5	41.0	13	4.0	5.0	160	SOT89
BT09E	500-4000	1900	18.7	25.2	37.0	10	4.4	5.0	85	SOT89
BT013	1500-4000	2140	14.0	27.2	45.0	13	6.8	5.0	135	SOT89

Applications:

- Base Station Infrastructure
- RFID
- Commercial, Industrial, and Military Wireless Systems
- Wireless LAN

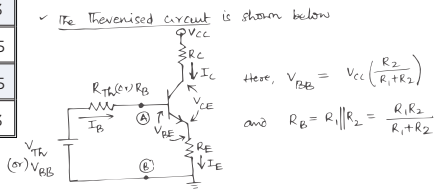
High Power Amplifiers

Utilizing its proprietary over-voltage protection technology, BeRex presents a suite of high-power amplifiers designed for the most demanding applications. These amplifiers feature internal bandwidths spanning from 100 MHz to 4000 MHz. The 5V devices incorporate high-reliability InGaP and GaAs HBT technologies, requiring minimal external components for impedance matching. They are available in a variety of RoHS2-compliant SMT packages, optimized for both size and thermal management.

Part Number	Bandwidth	Frequency	G_S	P1dB	OIP3/Tone		NF	V_{DD}	I_{DD}	Package
	MHz	MHz	dB	dBm	dBm		dB	V	mA	
BT301	500-4000	1900	12.5	30.3	49.0	16	8.6	5.0	350	SOIC8
BT302	500-4000	2400	16.0	29.5	42.1	16	4.2	5.0	215	SOT89
BT33L	100-1000	700	22.0	33.0	48.5	20	6.8	5.0	400	QFN24, 4x4
BMT321	700-2800	1900	27.0	32.5	50.0	17	5.0	5.0	335	QFN12, 3x3
BMT332	700-2400	1850	27.3	33.3	48.0	23	6.0	5.0	680	QFN20, 5x5
BMT333	1800-2700	2350	27.4	34.1	50.0	23	5.3	5.0	550	QFN20, 5x5
BMT352	3000-4000	3500	20.8	31.5	48.0	17	5.1	5.0	330	QFN12, 3x3

Applications:

- Base Stations, Repeaters, Infrastructure, and Small Cell Implementations
- Commercial, Industrial, and Military Wireless Systems
- LTE, WCDMA, CDMA Wireless Infrastructure



Wide-Band RF Switches

BeRex offers advanced reflective and absorptive RF switches that provide exceptional isolation, surpassing current market standards. These switches operate across the frequency range from 5 MHz to 9000 MHz, eliminating the need for blocking capacitors. They are equipped with robust Electrostatic Discharge (ESD) protection, deliver superior isolation performance, and exhibit industry-leading switching speeds. Available in compact 4x4 mm and 5x5 mm RoHS2-compliant packages.

Part Number	Bandwidth	Frequency	Insertion Loss	Isolation RFC to RFX	Return Loss	IP1dB	IIP3	2ND Harmonic	Type	Package
	MHz	MHz	dB	dB	dB	dBm	dBm	dBc		
BSW7221V	5-8500	2000	0.36	47	20	37.0	65.0	95	SPDT(R)	UDFN6 1.5x1.5
		6000	0.61	30		35.0	62.0	75		
BSW6620	5-9000	2000	0.72	70	18	36.5	66.0	100	SPDT(A)	QFN16 4x4
		6000	0.74	53		35.8	65.0	96		
BSW6622	5-9000	2000	0.68	62	17	36.0	64.0	95	SPDT(A)	QFN20 4x4
		6000	1.16	49		34.0	65.0	80		
BSW6420	50-9000	2000	0.74	67	15	40.5	63.5	97	SPDT(A)	TQFN16 3x3
		4000	0.84	56		41.0	66.0	97		
BSW6440	50-6000	2000	0.85	62	15	40.3	62.5	98.7	SP4T(A)	TQFN16 3x3
		6000	1.29	42		39.9	64.1	93.4		
BSW7221	5-8500	2000	0.36	47	20	37.0	65.0	95	SPDT(R)	UDFN6 1.5x1.5
		6000	0.61	30		35.0	62.0	80		
BSW722T	5-6000	2000	0.40	47	20	37.0	65.0	95	SPDT(R)	TDFN6 1.7x1.7x0.37
		6000	0.51	28		35.0	62.0	80		
BSW7321	5-8000	2000	0.57	46	15	39.0	65.0	90	SPDT(R)	UDFN6 1.5x1.5
		6000	0.97	30		39.0	65.0	90		
BSW7421	5-8000	2000	0.67	54	15	39.0	65.0	95	SPDT(R)	UDFN6 1.5x1.5
		6000	0.91	48		38.0	65.0	80		
BSW6321	5-6000	2000	0.55	43	20	39.0	63.0	90	SPDT(R)	UDFN6 1.5x1.5
		6000	0.73	28		36.0	67.0	90		

Applications:

- Wireless 3G, 4G, and 5G infrastructure
- Base Stations & Repeaters
- WLAN 802.11 A/B/AC/AX
- AEC-Q100 Qualified Versions for Passive Entry Passive Start (PEPS), High Accuracy Distance Measurement (HADM) and other V2X Automotive Applications

Digital Step Attenuators

BeRex offers a premier variable RF attenuator family, operating from near DC to 8 GHz. Leveraging its patented architecture, this attenuator ensures near-ideal monotonic performance. Unlike competitive products that exhibit significant glitch responses when crossing MSB thresholds, BeRex attenuators deliver glitch-free step-down functionality. The design eliminates the need for blocking capacitors and supports direct parallel, latched parallel, and addressable serial interfaces, streamlining system implementation and reducing the total BOM cost. These attenuators are available in RoHS2-compliant 4x4 QFN20 and 5x5 QFN32 packages.

6-bit Attenuation Control: 0.50 dB Step

Part Number	Frequency	Resolution	Insertion Loss	Attenuation Range	Attenuation Step	IP0.1 dB	IIP3	Interface	Package
	MHz	Bits	dB	dB	dB	dBm	dBm		
BDA4601	1-4000	6	0.7-2.6	0.0-31.5	0.5	31	59	Serial or Parallel	QFN20, 4x4
BDA4620	1-8000	6	0.6-2.8	0.0-31.5	0.5	30	63	Serial or Parallel	QFN20, 4x4
BDA4630	1-8000	6	0.6-2.7	0.0-31.5	0.5	29	64	Serial Addressable or Parallel	QFN24, 4x4

7-bit Attenuation Control: 0.25 dB Step

† The BDA4710V is Automotive Qualified to AEC-Q100

Part Number	Frequency	Resolution	Insertion Loss	Attenuation Range	Attenuation Step	Input P 0.1 dB	Input IIP3	Interface	Package
	MHz	Bits	dB	dB	dB	dBm	dBm		
BDA4710V†	1-8000	7	0.6-2.8	0.00-31.75	0.25	30	68	Serial Addressable or Parallel	QFN32, 5x5
BDA4700	1-8000	7	0.7-2.7	0.00-31.75	0.25	32	65	Serial or Parallel	QFN24, 4x4
BDA4710	1-8000	7	0.6-2.8	0.00-31.75	0.25	30	68	Serial Addressable or Parallel	QFN32, 5x5
BDA4730	0.009-8000	7	0.6-2.8	0.00-31.75	0.25	30	68	Serial Addressable or Parallel	QFN32, 5x5

Digital Variable Gain Amplifiers

The Digital Variable Gain Amplifier (DVGA) from BeRex is an advanced product family offering adjustable gain control via serial or parallel logic interfaces. It features precise attenuation step transitions and operates over an internal bandwidth of 5 MHz to 8000 MHz. The DVGA is available in a variety of RoHS2-compliant SMT packages, ranging from 4x4 mm to 7x7 mm, ensuring compatibility with diverse application requirements.

Part Number	Bandwidth	Frequency	Gain	OP1dB	OIP3	NF	Range, Step Size	Interface	V_{DD}	I_{DD}	Package
	MHz	MHz	dB	dBm	dBm	dB	dB		Volts	mA	
BVA303C	30-5000	1900	21.2	16.6	29.9	2.7	0-31.5, 0.50	Serial or Parallel	3.0	51	QFN24, 4x4
		3500	16.4	14.2	27.3	3.5					
BVA304C	50-4000	1900	14.8	19.0	32.2	3.1	0-31.5, 0.50	Serial or Parallel	3.3	26	QFN24, 4x4
		3500	9.0	18.8	30.6	4.0					
BVA305C	40-5000	1900	14.3	14.0	27.7	3.6	0-31.5, 0.50	Serial or Parallel	3.0	52	QFN24, 4x4
		3500	11.4	12.6	24.7	4.1					
BVA518C	5-4000	900	21.5	20.0	35.5	4.8	0-31.5, 0.50	Serial or Parallel	5.0	77	QFN24, 4x4
		1900	20.0	18.8	32.8	5.3					
BVA2140	700-4000	2140	30.2	25.1	40	2.9	0-31.5, 0.50	Serial	5.0	150	QFN24, 4x4
BVA2140B	700-4000	2140	30.4	25.6	40.2	2.7	0-31.5, 0.50	Serial	5.0	150	QFN24, 4x4
BVA2182	500-3800	1950	33.5	21.2	38.2	1.6	0-31.5, 0.50	Serial	5.0	170	QFN48, 7x7
BVA7202	400-1100	800	33.9	23.7	40.5	4.6	0-31.5, 0.50	Serial	5.0	165	LGA28, 6x6
BVA7212	1400-2300	1800	33.2	23.6	40.6	3.3	0-31.5, 0.50	Serial	5.0	180	LGA28, 6x6
BVA1761	50-6000	1900	18.7	20.8	36.9	2.1	0-31.75, 0.25	Serial Addressable	3.3	48	QFN24, 4x4
		3500	17.0	20.0	37.5	2.8			5.0	83	
BVA1762	500-8000	1900	20.4	20.8	36.0	2.6	0-31.75, 0.25	Serial Addressable	4.0	55	QFN24, 4x4
		3500	19.7	20.7	34.9	3.2			5.0	110	
BVA2761	50-6000	1900	38.2	21.6	36.8	1.3	0-31.75, 0.25	Serial Addressable	3.3	96	QFN32, 5x5
		3500	34.8	20.7	36.6	1.5			5.0	166	
BVA2762	500-8000	1900	41.5	21.3	36.6	1.5	0-31.75, 0.25	Serial Addressable	4.0	110	QFN32, 5x5
		3500	40.5	21.2	35.6	1.8			5.0	215	
BVA3143	3300-3800	3550	39.7	26.2	43.0	3.9	0-31.75, 0.25	Serial	5.0	310	LGA28, 6x6
BVA3144	4400-5000	4650	36.3	26.0	41.0	4.0	0-31.75, 0.25	Serial	5.0	310	LGA28, 6x6
BVA3153	3600-4200	3900	38.5	26.7	43.0	4.0	0-31.75, 0.25	Serial	5.0	310	LGA28, 6x6
BVA7242N	3000-4200	3600	33.5	19.6	37.5	1.9	0-31.75, 0.25	Serial	5.0	165	LGA28, 6x6
BVA7242	3000-4200	3600	34.5	20.0	38.0	1.8	0-31.75, 0.25	Serial	3.3	98	LGA28, 6x6
									5.0	170	

Applications:

- Wireless 3G, 4G, and 5G infrastructure
- High Performance RF Applications
- Microwave and Satellite Radios
- General Purpose Wireless

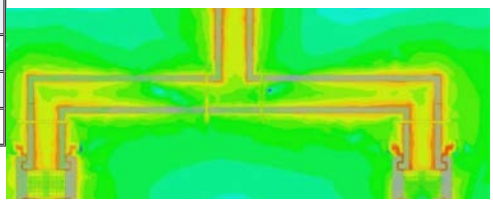
Dividers

The BeRex series of frequency dividers is engineered to meet the stringent requirements of advanced mobile communication standards, including PCS, WCDMA, Wi-Bro, TD-SCMA, 5G, LTE, and WLAN. These dividers deliver exceptional wide-band performance and high isolation. They are available in solder-less SOT26 and QFN16 packages, compliant with RoHS2 directives.

Part Number	Bandwidth	Application	Frequency	I/L	Isolation	ø Difference	Amplitude Difference	Package
	MHz	Standard	MHz	dB	dB	degrees	dB	
BD0926	700-1000	GSM900	850	0.57	31.4	0.20	0.01	SOT26
BD1926	1700-2300	PCS, WCDMA	1900	0.55	24.8	1.50	0.07	SOT26
BD2326	1900-2500	PCS, WCDMA, WiBro, TD-SCDMA	2350	0.69	19.5	0.60	0.06	SOT26
BD2626	2400-2900	WCDMA, Wi-Bro, LTE	2650	0.61	28.2	0.75	0.07	SOT26
BD3526	2800-4200	WCDMA, LTE, 5G	3500	0.59	38.0	0.38	0.05	SOT26
BD4026	600-4500	WCDMA, LTE, 5G	2100	0.70	25.6	0.13	0.01	QFN16, 3x3
BD4526	2700-6000	WLAN, 5G	4900	0.80	23.5	0.60	0.05	QFN16, 3x3

Applications:

- Base Station Infrastructure
- Commercial, Industrial, and Military Wireless Systems
- 5G, LTE, WCDMA, CDMA, PCS, W-Bro, and WLAN Wireless Infrastructure
- Satellite Communications



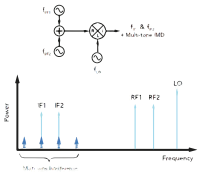
Mixers

BeRex provides state-of-the-art mixers designed to meet the rigorous demands of advanced RF applications. These mixers operate across a broad RF frequency spectrum from 700 MHz to 6 GHz, ensuring versatility and high performance. They feature low conversion loss, making them ideal for applications in LTE, WDMA, CDMA, and other wireless infrastructure systems. The mixers are available in MSOP8 and TDFN8 packages, both compliant with RoHS2 standards.

Part Number	RF Frequency	IF Frequency	Conversion Loss	P1dB	Input IP3	LO Power	V_{DD}	I_{DD}	Package
	MHz	MHz	dB	dBm	dBm	dBm	V	mA	
BM831	700-1400	50-210	9.1	24.2	31.7	-2 to +2	5.0	85	MSOP8
			9.0	19.1	28.5	-2 to +2	3.3	45	
BM852	1700-2700	50-300	8.1	23.0	32.8	-2 to +4	5.0	58	MSOP8
			8.2	18.8	30.3	-2 to +4	3.3	45	
BM351	2500-6000	50-700	8.9	22.1	28.8	-2 to +2	5.0	85	TDFN8
			8.5	19.6	25.6	-2 to +2	3.3	62	

Applications:

- Base Station, Repeaters, Infrastructure, and Small Cell Implementations
- Commercial, Industrial, and Military Wireless Systems
- LTE, WDMA, & CDMA
- Infrastructure



Automotive Qualified RF Solutions

BeRex supplies automotive-qualified RF switches and digital step attenuators (DSAs) engineered for high-demand in-vehicle applications. The RF switches offer superior isolation across a wide frequency range, setting industry benchmarks. The DSAs feature a 7-bit resolution with fully monotonic performance, eliminating overshoot at MSB transitions. Both components are available in ultra-compact surface-mount technology (SMT) packages and adhere to RoHS2 compliance standards.

RF Switch

Part Number	Bandwidth	Frequency	Insertion Loss	Isolation RFC to RFX	Return Loss	IP1dB	IIP3	Type	Package	Certification
	MHz	MHz	dB	dB	dB	dBm	dBm			
BSW7221V	5-8500	1000	0.32	52	20	-	-	SPDT(R)	UDFN6 1.5x1.5	AEC-Q100, Grade 2
		2000	0.36	47		37	65			
		4000	0.42	34		-	-			
		6000	0.61	30		35	62			
		8000	0.57	24		34	-			
		8500	0.81	23		-	-			

Applications:

- Passive Entry Passive Start (PEPS)
- Channel Sounding and HADM
- Antenna Diversity
- Multi-Modal Communication
- V2X Automotive Communications
- Telematics and Diagnostics
- Over the Air (OTA) Software Updates

DSA

Part Number	Frequency	Insertion Loss	Attenuation Range	Attenuation Step	IP0.1 dB	IIP3	Interface	Package	Certification
	MHz	dB	dB	dB	dBm	dBm			
BDA4710V	1-8000	0.6-2.8	0.00-31.75	0.25	30	68	Serial Addressable or Parallel	QFN32, 5x5	AEC-Q100, Grade 2

Bare Die Up to 26.5 GHz

BeRex stands out as a specialized supplier capable of delivering products in bare die form, catering to highly customizable and demanding applications. Their offerings include power pHEMT devices, as well as high-gain and medium power solutions spanning frequencies from DC to 26.5 GHz. These products are designed for advanced military, high-reliability, industrial, commercial, and test and measurement applications, utilizing industry-proven GaAs, InGaP, and GaN process technologies.

High Efficiency Hetrojunction Power FETs

Part Number	Active Size	Die Size	W (Gate/Finger)	Bias	P1dB	Gain	Frequency	I_{DS}	BV_{GD}
	µm²	µm²	µm		dBm	dB	GHz	mA	V
Bare Die									
BCP020C	0.250x200	340x390	50	8V, 0.5 I_{DSS}	22.0	14.0	12	40-80	15
BCP030C	0.250x300	340x390	50	8V, 0.5 I_{DSS}	24.2	13.5	12	60-120	15
BCP040C	0.250x400	340x390	50	8V, 0.5 I_{DSS}	25.5	13.5	12	70-150	15
BCP060C	0.250x600	340x390	60	8V, 0.5 I_{DSS}	27.5	12.0	12	130-250	15
BCP080C	0.250x800	340x390	80	8V, 0.5 I_{DSS}	28.5	11.0	12	165-325	15
BCP120C	0.250x1200	540x390	60	8V, 0.5 I_{DSS}	30.5	11.0	12	260-500	15
BCP160C	0.250x1600	540x390	80	8V, 0.5 I_{DSS}	31.5	10.0	12	340-680	15
BCP240C	0.250x2400	940x390	60	8V, 0.5 I_{DSS}	33.0	9.0	12	530-1030	15
Non-Hermetic Low Cost 70 mil Packages, Ceramic, Micro-X									
BCP020C-70	0.250x200	-	50	6V, 0.5 I_{DSS}	21.5	12.0	12	40-80	15
BCP030C-70	0.250x300	-	50	6V, 0.5 I_{DSS}	23.0	11.5	12	60-120	15

Low Distortion GaAs Power FETs

Part Number	Active Size	Die Size	W (Gate/Finger)	Bias	P1dB	Gain	Frequency	I_{DS}	BV_{GD}
	µm²	µm²	µm		dBm	dB	GHz	mA	V
Bare Die									
BCF020T	0.250x200	340x360	35	8V, 0.5 I_{DSS}	19.0	13.0	12	40-60	15
BCF030T	0.250x300	340x360	38	8V, 0.5 I_{DSS}	21.5	13.5	12	60-120	15
BCF040T	0.250x400	340x360	50	8V, 0.5 I_{DSS}	23.0	13.0	12	80-160	15
BCF060T	0.250x600	340x360	60	8V, 0.5 I_{DSS}	25.0	12.5	12	100-240	15
BCF080T	0.250x800	510x360	50	8V, 0.5 I_{DSS}	26.0	11.0	12	160-320	15
BCF120T	0.250x1200	550x360	60	8V, 0.5 I_{DSS}	28.0	11.0	12	200-440	15
BCF240T	0.250x2400	970x360	60	8V, 0.5 I_{DSS}	30.0	10.0	12	480-960	15

Low Noise High Gain Hetrojunction FETs

Part Number	Active Size	Die Size	W (Gate/Finger)	Bias	NF	Gain	Frequency	I_{DS}	BV_{GD}
	µm²	µm²	µm		dB	dB	GHz	mA	V
Bare Die									
BCL016B	0.150x160	250x250	40	2V, 10mA	0.40	13.5	12	50	9
BCL015	0.150x150	310x340	25	2V, 10mA	0.42	15.0	12	25	10
Non-Hermetic Low Cost 70 mil Packages, Ceramic, Micro-X									
BCl015-70	0.150x150	-	25	2V, 10mA	0.49	12	12	25	10

High-Reliability InGaP/GaAs HBTs

Part Number	Active Size	Die Size	W (Gate/Finger)	Bias	NF	Gain	Frequency	I_{DS}	BV_{GD}
	µm²	µm²	µm		dB	dB	GHz	mA	V
Bare Die									
BCL016B	0.150x160	250x250	40	2V, 10mA	0.40	13.5	12	50	9
BCL015	0.150x150	310x340	25	2V, 10mA	0.42	15.0	12	25	10
Non-Hermetic Low Cost 70 mil Packages, Ceramic, Micro-X									
BCl015-70	0.150x150	-	25	2V, 10mA	0.49	12	12	25	10

High Efficiency High Power GaN

Part Number	Active Size	Die Size	W (Gate/Finger)	Bias	P3dB	G3	Frequency	I_{DS}	BV_{GD}
	µm²	µm²	µm		dBm	dB	GHz	mA	V
Bare Die									
BCG002	0.150x480	500x520	60	28V, 20mA	33.5	12.5	12	265-400	84
BCG004	0.150x960	600x520	80	28V, 40mA	36.5	10.5	12	420-620	84
BCG008	0.150x1250	500x590	100	28V, 60mA	39.0	9.5	12	510-770	84

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