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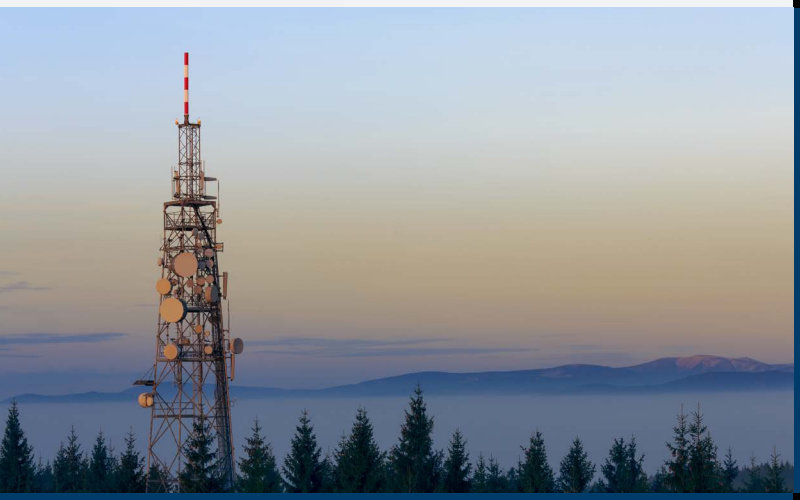
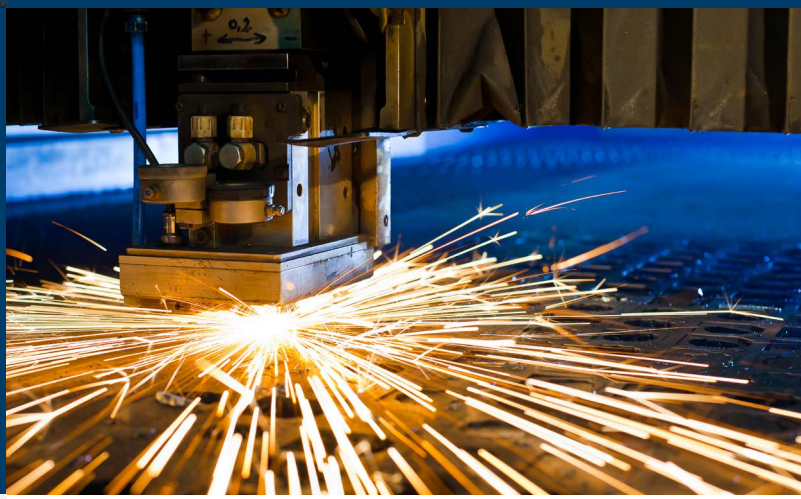


Short Form Catalog

RF power solutions for
MultiMarket



October 2024

Advancing society through **RF**

Explore our comprehensive catalog offering a diverse array of MultiMarket RF power amplifiers tailored for Industrial, Scientific, Medical (ISM), broadcast, navigation, and safety radio applications. Stay informed with the latest advancements in Solid State Power Amplifiers (SSPAs) that continually push the boundaries of peak power and system power combining, paving the way for compact, cost-effective alternatives to traditional tube-based technologies with reduced maintenance requirements.

Key highlights of our catalog include:

- **Advanced Rugged Transistors (ART)**: recognized for their unparalleled performance, ART transistors dominate ISM markets, meeting the rigorous demands of modern ISM designs.
- **High Power GaN on SiC HEMTs**: from UHF frequencies onwards, GaN SSPAs offer superior output power levels and remarkable efficiency, ideal for pulsed, broadband, and continuous wave (CW) applications, surpassing the traditional LDMOS amplifiers.
- **Industry-leading LDMOS amplifiers**: featuring the BLF989 and BLF989E models, designed to meet the diverse needs of UHF-TV broadcast applications, alongside discrete wideband LDMOS amplifiers and drivers like the BLF978P and BLF974P.
- **Cutting-edge LDMOS transistors for radar applications**: our latest offerings in UHF, Avionics, L-band, and S-band GaN and LDMOS transistors deliver exceptional efficiency and performance, ensuring optimal cost-effectiveness.

All new products are based upon latest GaN HEMT and LDMOS technology generations, adhering to the highest quality and reliability standards from our own factories as well as from leading external manufacturers we partner with.

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(A)dvanced (R)ugged (T)echnology

The ART of transforming dreams into reality

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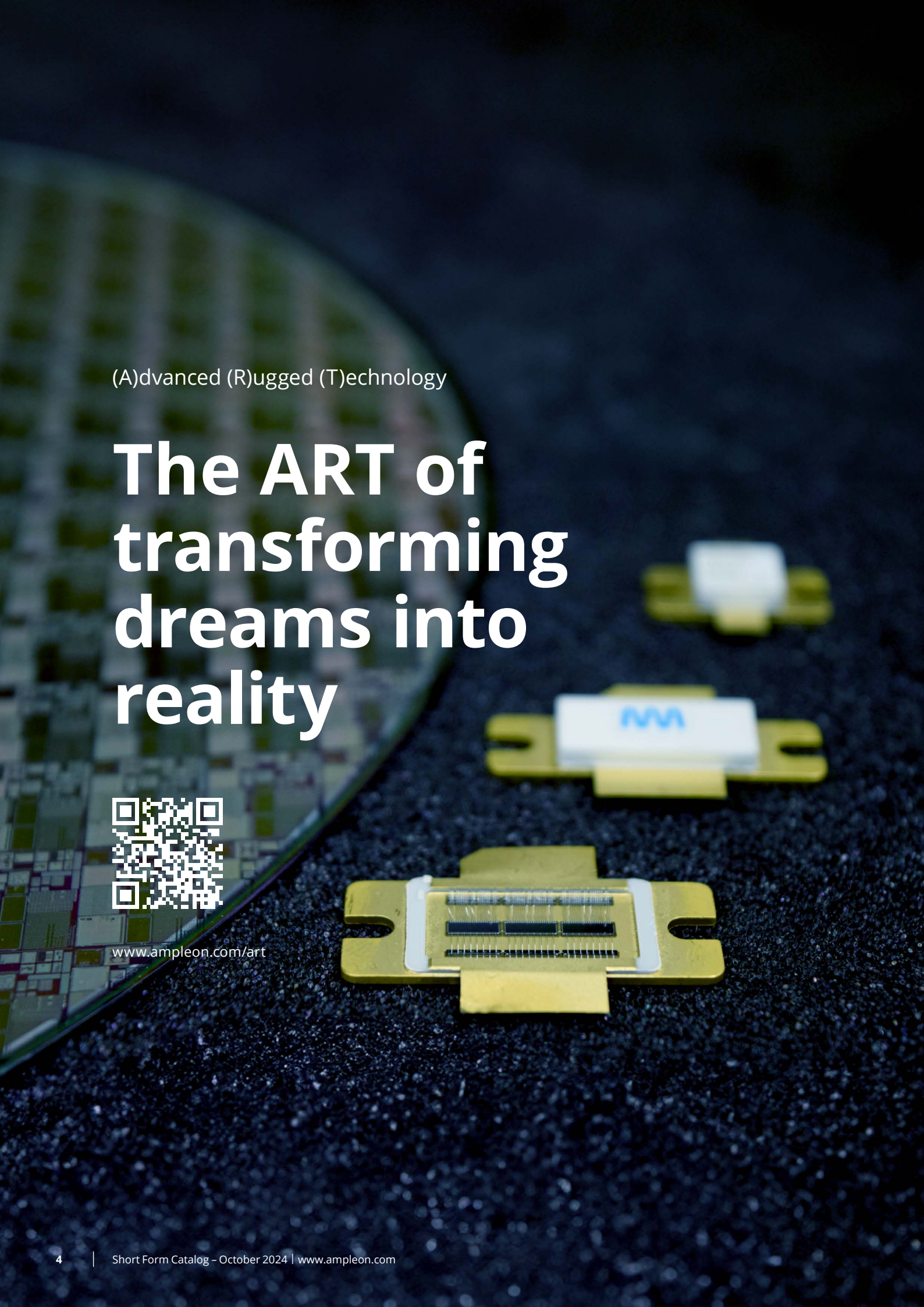

RF DesignCare

More than just a service, we become your dedicated partner in amplifying success. Elevate your RF power amplifier circuit design experience by choosing a support service that transcends expectations. Choose excellence, choose innovation, choose us. Your journey to exceptional design starts here.

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Discrete wideband LDMOS amplifiers

Frequency (MHz)	Type number	Technology	Package type	Package	$P_{L(1dB)}$ (W)	V_{DS} (V)	η_D (%)	G_p (dB)	Recommended driver	Status
433	BLP05H9S500P	Gen9 - LDMOS	OMP	OMP-780-4F-1	500	50	75	25.3	BLP15H9S10	Production
1-700	BLF978P	Gen9 LDMOS	ACC	SOT539A	1200	50	80	25.5	BLP15H9S30	Production
1-700	BLF974P	Gen9 LDMOS	ACC	SOT539A	500	50	77	25.3	BLP15H9S10	Production
1-1300	BLF944P	Gen9 LDMOS	ACC	SOT1228A	135	32	67	20.3		Production
1-2000	BLP15H9S10	Gen9 LDMOS	OMP	TO-270-2F-1	10	50	65	21		Production
1-2000	BLP15H9S10G	Gen9 LDMOS	OMP	TO-270-2G-1	10	50	65	21		Production
1-2000	BLP15H9S30	Gen9 LDMOS	OMP	TO-270-2F-1	30	50	65	21		Production
1-2000	BLP15H9S30G	Gen9 LDMOS	OMP	TO-270-2G-1	30	50	65	21		Production
1-2000	BLP15H9S100	Gen9 LDMOS	OMP	TO-270-2F-1	100	50	62	20		Production
1-2000	BLP15H9S100G	Gen9 LDMOS	OMP	TO-270-2G-1	100	50	62	20		Production
1-2000	BLP15M9S30	Gen9 LDMOS	OMP	TO-270-2F-1	30	32	72	19.3		Production
1-2000	BLP15M9S30G	Gen9 LDMOS	OMP	TO-270-2G-1	30	32	72	19.3		Production
1-2700	BLP0427M9S20	Gen9 LDMOS	OMP	TO-270-2F-1	20	28	63	19		Production
1-2700	BLP0427M9S20G	Gen9 LDMOS	OMP	TO-270-2G-1	20	28	63	19		Production
1-2000	BLP15M9S70	Gen9 LDMOS	OMP	TO-270-2F-1	70	32	70	17.6		Production
1-2000	BLP15M9S70G	Gen9 LDMOS	OMP	TO-270-2G-1	70	32	70	17.6		Production
1-1500	BLP15M9S100	Gen9 LDMOS	OMP	TO-270-2F-1	100	32	68	16		Production
1-1500	BLP15M9S100G	Gen9 LDMOS	OMP	TO-270-2G-1	100	32	68	16		Production
1-520	BLP5LA55S	Gen9 LDMOS	OMP	TO-270-2F-1	55	13.6	78.5	19.2		Production
1-520	BLP5LA55SG	Gen9 LDMOS	OMP	TO-270-2G-1	55	13.6	78.5	19.2		Production
1-941	BLP9LA25S	Gen9 LDMOS	OMP	TO-270-2F-1	25	13.6	72	18.4		Production
1-941	BLP9LA25SG	Gen9 LDMOS	OMP	TO-270-2G-1	25	13.6	72	18.4		Production
1-1500	BLF647P	Gen7 LDMOS	ACC	SOT1121A	200	32	70	18		Production

Discrete wideband GaN amplifiers

Frequency (MHz)	Type number	Technology	Package type	Package	P_L (W)	V_{DS} (V)	η_D* (%)	G_p (dB)	Recommended driver	Status
0-6000	**CLF3H0060-10**	Gen3 GaN	ACC	SOT1227A	10	50	63	20.1		Production
0-6000	**CLF3H0060S-10**	Gen3 GaN	ACC	SOT1227B	10	50	63	20.1		Production
0-6000	**CLF3H0060-30**	Gen3 GaN	ACC	SOT1227A	30	50	60.4	16.7		Production
0-6000	**CLF3H0060S-30**	Gen3 GaN	ACC	SOT1227B	30	50	60.4	16.7		Production
0-3500	**CLF3H0035-100**	Gen3 GaN	ACC	SOT467C	100	50	60	14.7	CLF3H0060-30	Production
0-3500	**CLF3H0035S-100**	Gen3 GaN	ACC	SOT467B	100	50	60	14.7	CLF3H0060S-30	Production

* @ P_{3dB}

Extremely rugged LDMOS amplifiers

Frequency (MHz)	Type number	Technology	Package type	Package	$P_{L(1dB)}$ (W)	V_{DS} (V)	η_D (%)	G_p (dB)	Recommended driver	Status
1-425	**ART1K6FH**	ART LDMOS	ACC	SOT539AN	1600	55	77	29	ART35FE BLP15H9S10	Production
1-425	**ART1K6FHS**	ART LDMOS	ACC	SOT539BN	1600	55	77	29	ART35FE BLP15H9S10	Production
1-425	**ART1K6FHG**	ART LDMOS	ACC	SOT1248C	1600	55	77	29	ART35FE BLP15H9S10	Production
1-400	**ART2K0FE**	ART LDMOS	ACC	SOT539AN	2000	65	78	27	ART35FE ART150FE/PE(G)	Production
1-400	**ART2K0FES**	ART LDMOS	ACC	SOT539BN	2000	65	78	27	ART35FE ART150FE/PE(G)	Production
1-400	**ART2K0FEG**	ART LDMOS	ACC	SOT1248C	2000	65	78	27	ART35FE ART150FE/PE(G)	Production
1-400	**ART2K0TFE**	ART LDMOS	ACC	ACC-1230-6F-3	2000	65	73	29	ART35FE	Production
1-400	**ART2K0TFES**	ART LDMOS	ACC	ACC-1230-6F-2	2000	65	73	29	ART35FE	Production
1-400	**ART2K5TPU**	ART LDMOS	OMP	OMP-1230-6F-2	2500	75	76	28.5	ART150PE	Production
1-400	**ART2K0TFEG**	ART LDMOS	ACC	ACC-1230-6G-2	2000	65	73	29	ART35FE	Production
1-400	**ART2K5TFUS**	ART LDMOS	ACC	ACC-1230-6F-2	2500	75	76	29.5	ART35FE	Production
1-400	**ART2K5TFUG**	ART LDMOS	ACC	ACC-1230-6G-2	2500	75	76	29.5	ART35FE	Production
1-450	**ART2K0PE**	ART LDMOS	OMP	OMP-1230-4F-1	2000	65	71.7	27.7	ART35FE ART150PE	Production
1-450	**ART2K0PEG**	ART LDMOS	OMP	OMP-1230-4G-1	2000	65	71.7	27.7	ART35FE ART150PE	Production
1-450	**ART700FH**	ART LDMOS	ACC	SOT1214A	700	50	77	29	BLP15H9S10	Production
1-450	**ART700FHS**	ART LDMOS	ACC	SOT1214B	700	50	77	29	BLP15H9S10	Production
1-450	**ART700FHG**	ART LDMOS	ACC	SOT1214C	700	50	77	29	BLP15H9S10	Production
1-450	**ART1K6PH**	ART LDMOS	ACC	OMP-1230-4F-1	1400 / 1600	50 / 55	77.7 / 76.4	27.2 / 28.2	ART35FE	Production
1-450	**ART1K6PHG**	ART LDMOS	ACC	OMP-1230-4G-1	1400 / 1600	50 / 55	77.7 / 76.4	27.2 / 28.2	ART35FE	Production
1-500	**ART1K9FH**	ART LDMOS	ACC	SOT539A	1900	55	75	25	ART35FE	Production
1-650	**ART150FE**	ART LDMOS	ACC	SOT467C	150	65	74.6	30.6		Production
1-600	**ART150PE**	ART LDMOS	OMP	TO-270-2F-1	150	65	82	31		Production

Bold = NEW

Extremely rugged LDMOS amplifiers (continued)

Frequency (MHz)	Type number	Technology	Package type	Package	$P_{L(1dB)}$ (W)	V_{DS} (V)	η_D (%)	G_p (dB)	Recommended driver	Status
1-600	**ART150PEG**	ART LDMOS	OMP	TO-270-2G-1	150	65	82	31		Production
1-650	**ART35FE**	ART LDMOS	ACC	SOT467C	35	65	72	30.4		Production
1-650	**ART450FE**	ART LDMOS	ACC	SOT1121A	450	65	74	27	ART35FE	Production
1-650	**ART800PE**	ART LDMOS	OMP	OMP-780-4F-1	800	65	74.5	29.2	ART35FE	Production
1-650	**ART800PEG**	ART LDMOS	OMP	OMP-780-4G-1	800	65	74.5	29.2	ART35FE	Production

UHF broadcast amplifiers

Frequency (MHz)	Type number	Technology	Package type	Package	$P_{L(1dB)}$ (W)	V_{DS} (V)	η_D (%)	G_p (dB)	Recommended driver	Status
470-860	BLP0408H9S30	Gen9 - LDMOS	OMP	TO-270-2F-1	30 / 30*	50	32	20		Production
470-860	BLF989	Gen9 - LDMOS	ACC	SOT539A	900 / 200*	50	53	19	BLP0408H9S30	Production
470-860	BLF989S	Gen9 - LDMOS	ACC	SOT539B	900 / 200*	50	53	19	BLP0408H9S30	Production
470-860	BLF989E	Gen9 - LDMOS	ACC	SOT539AN	1000 / 180*	50	52	18	BLP0408H9S30	Production
470-860	BLF989ES	Gen9 - LDMOS	ACC	SOT539BN	1000 / 180*	50	52	18	BLP0408H9S30	Production
470-860	BLF984PS	Gen9 - LDMOS	ACC	SOT1121B	450 / 80*	50	34	22	BLP15H9S10	Production
470-860	BLF984P	Gen9 - LDMOS	ACC	SOT1121A	450 / 80*	50	34	22	BLP15H9S10	Production

* $P_{L(AV)}$ (W)

Amplifiers matched for Industrial, Scientific, Medical (ISM) and heating applications

Frequency (MHz)	Type number	Technology	Package type	Package	$P_{L(1dB)}$ (W)	V_{DS} (V)	η_D (%)	G_p (dB)	Recommended driver	Status
433	BLP05H9S500P	Gen9 - LDMOS	OMP	OMP-780-4F-1	500	50	75	25.3	BLP15H9S10	Production
915	BLF0910H9LS750P	Gen9 - LDMOS	ACC	SOT539B	750	50	72.5	21.5	BLP15H9S10	Production
915	BLF0910H9LS600	Gen9 - LDMOS	ACC	SOT502B	600	50	68.5	19.8	BLP15H9S10	Production
1300	BLF13H9L750P	Gen9 - LDMOS	ACC	SOT539A	750	50	62.5	17	BLP15H9S30	Production
1300	BLF13H9LS750P	Gen9 - LDMOS	ACC	SOT539B	750	50	62.5	17	BLP15H9S30	Production
2450	BLF2425M9L30	Gen9 - LDMOS	ACC	SOT1135A	30	32	61	18.5		Production
2450	BLF2425M9LS30	Gen9 - LDMOS	ACC	SOT1135B	30	32	61	18.5		Production
2450	BLF2425M9LS140	Gen9 - LDMOS	ACC	SOT502B	140	28	58	19		Production
2450	BLM2425M7S60P	Gen7 - LDMOS	OMP	SOT1211-3	60	32	45	27.5		Production
2450	BLC2425M10LS500P	Gen10 - LDMOS	ACP	SOT1250-1	500	32	67.5	15	BLM2425M7S60P	Production
2450	BLC2425M10LS250	Gen10 - LDMOS	ACP	SOT1270-1	250	32	68.5	15.2	BLM2425M9S20	Production
2450	BLM2425M9S20	Gen9 - LDMOS	OMP	OMP-400-8F-1	20	32	50	27		Production
2450	BLP2425M10S250P	Gen10 - LDMOS	OMP	OMP-780-4F-1	250	32	67.5	15.2	BLM2425M9S20	Production

Bold = NEW

Amplifiers matched for Industrial, Scientific, Medical (ISM) and heating applications (continued)

Frequency (MHz)	Type number	Technology	Package type	Package	$P_{L(1dB)}$ (W)	V_{DS} (V)	η_D (%)	G_p (dB)	Recommended driver	Status
2400-2500	**CLP24H4S30P**	Gen4 GaN	OMP	DFN-7x6.5-6-1	25	50	75	17		Production
2400-2500	**CLF24H4LS300P**	Gen4 GaN	ACC	SOT1214B	320	50	74	14	CLP24H4S30P	Production

UHF and avionics pulsed radar amplifiers

Frequency (MHz)	Type number	Technology	Package type	Package	$P_{L(1dB)}$ (W)	V_{DS} (V)	η_D (%)	G_p (dB)	Recommended driver	Status
400-800	**BLU9H0408L-800P**	Gen9 LDMOS	ACC	SOT539A	800	50	70	22	BLP0408H9S30	Production
960-1215	BLA9H0912L-250G	Gen9 LDMOS	ACC	SOT502F	250	50	60	22	BLP15H9S10	Production
960-1215	BLA9H0912LS-250	Gen9 LDMOS	ACC	SOT502B	250	50	60	22	BLP15H9S10	Production
960-1215	BLA9H0912LS-250G	Gen9 LDMOS	ACC	SOT502E	250	50	60	22	BLP15H9S10	Production
960-1215	BLA9H0912L-250	Gen9 LDMOS	ACC	SOT502A	250	50	60	22	BLP15H9S10	Production
960-1215	BLA9H0912L-700G	Gen9 LDMOS	ACC	SOT502F	700	50	62	20	BLP15H9S10	Production
960-1215	BLA9H0912LS-700	Gen9 LDMOS	ACC	SOT502B	700	50	62	20	BLP15H9S10	Production
960-1215	BLA9H0912LS-700G	Gen9 LDMOS	ACC	SOT502E	700	50	62	20	BLP15H9S10	Production
960-1215	BLA9H0912L-700	Gen9 LDMOS	ACC	SOT502A	700	50	62	20	BLP15H9S10	Production
960-1215	BLA9H0912L-1200P	Gen9 LDMOS	ACC	SOT539A	1200	50	60	19	BLP15H9S30	Production
960-1215	BLA9H0912LS-1200P	Gen9 LDMOS	ACC	SOT539B	1200	50	60	19	BLP15H9S30	Production
960-1215	**BLA9H0912LS-1200PG**	Gen9 LDMOS	ACC	SOT1248C	1200	50	60	19	BLA6H0912LS-1000	Production
1030-1090	BLA9G1011L-300	Gen9 LDMOS	ACC	SOT502A	317	32	64.8	21.5	BLP0427M9S20	Production
1030-1090	BLA9G1011L-300G	Gen9 LDMOS	ACC	SOT502F	317	32	64.8	21.5	BLP0427M9S20G	Production
1030-1090	BLA9G1011LS-300	Gen9 LDMOS	ACC	SOT502B	317	32	64.8	21.5	BLP0427M9S20	Production
1030-1090	BLA9G1011LS-300G	Gen9 LDMOS	ACC	SOT502E	317	32	64.8	21.5	BLP0427M9S20G	Production

Bold = NEW

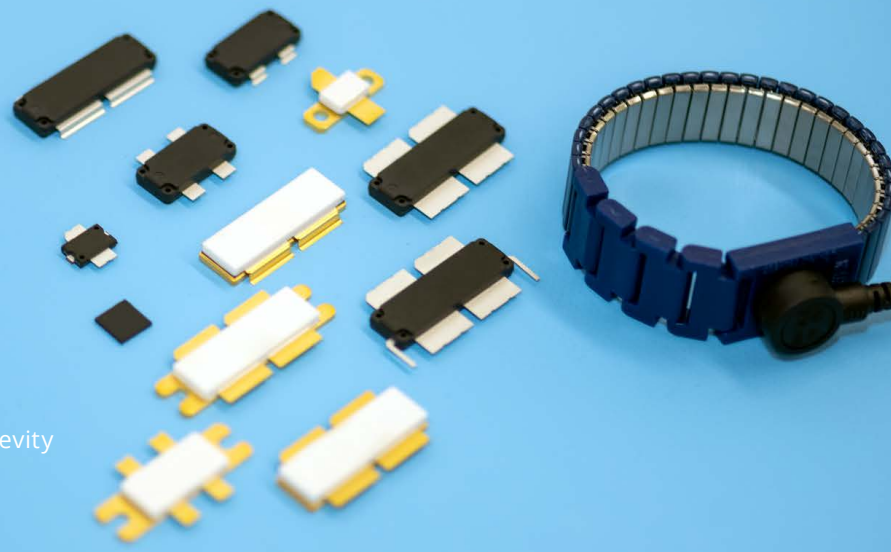
L-band and S-band pulsed radar amplifiers

Frequency (MHz)	Type number	Technology	Package type	Package	$P_{L(1dB)}$ (W)	V_{DS} (V)	η_D (%)	G_p (dB)	Recommended driver	Status
900-1400	**CLL3H0914L-700**	Gen3 GaN	ACC	SOT502A	750	50	71	16	CLF3H0060-30 BLP15H9S30	Production
900-1400	**CLL3H0914LS-700**	Gen3 GaN	ACC	SOT502B	750	50	71	16	CLF3H0060S-30 BLP15H9S30	Production
1200-1400	BLL9G1214L-600	Gen9 LDMOS	ACC	SOT502A	600	32	60	19	BLP0427M9S20	Production
1200-1400	BLL9G1214LS-600	Gen9 LDMOS	ACC	SOT502B	600	32	60	19	BLP0427M9S20	Production
2700-3500	BLS9G2735L-50	Gen9 LDMOS	ACC	SOT1135A	45	32	48	12		Production
2700-3500	BLS9G2735LS-50	Gen9 LDMOS	ACC	SOT1135B	45	32	48	12		Production
2700-3100	BLS9G2731L-400	Gen9 LDMOS	ACC	SOT502A	400	32	47	13	BLS9G2735L-50	Production
2700-3100	BLS9G2731LS-400	Gen9 LDMOS	ACC	SOT502B	400	32	47	13	BLS9G2735LS-50	Production
2700-2900	BLS9G2729L-350	Gen9 LDMOS	ACC	SOT502A	350	28	50	14	BLS9G2735L-50	Production
2700-2900	BLS9G2729LS-350	Gen9 LDMOS	ACC	SOT502B	350	28	50	14	BLS9G2735LS-50	Production
2900-3400	BLS9G2934L-400	Gen9 LDMOS	ACC	SOT502A	400	32	43	12	BLS9G2735L-50	Production
2900-3400	BLS9G2934LS-400	Gen9 LDMOS	ACC	SOT502B	400	32	43	12	BLS9G2735LS-50	Production
3100-3500	BLS9G3135L-115	Gen9 LDMOS	ACC	SOT1135A	115	32	49	14		Production
3100-3500	BLS9G3135LS-115	Gen9 LDMOS	ACC	SOT1135B	115	32	49	14		Production
3100-3500	BLS9G3135L-400	Gen9 LDMOS	ACC	SOT502A	400	32	43	12	BLS9G2735L-50	Production
3100-3500	BLS9G3135LS-400	Gen9 LDMOS	ACC	SOT502B	400	32	43	12	BLS9G2735LS-50	Production

Bold = NEW

Product longevity

We ensure reliable supply by offering extended availability from a product's launch onwards.



www.ampleon.com/support/product-longevity

Package portfolio

Air-Cavity Ceramic (ACC) packages*

ACC-1230-6F-2
(32.26 x 10.16 x max. 5.5 (mm))

ACC-1230-6F-3
(41.15 x 10.16 x max. 5.5 (mm))

ACC-1230-6G-2
(32.26 x 10.16 x max. 5.5 (mm))

SOT467B
(9.7 x 5.8 x max. 4.7 (mm))

SOT467C
(20.3 x 5.8 x max. 4.7 (mm))

SOT502A
(34.0 x 9.8 x max. 4.7 (mm))

SOT502B
(20.6 x 9.8 x max. 4.7 (mm))

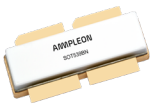
SOT502E
(20.6 x 9.8 x max. 4.7 (mm))

SOT502F
(34.0 x 9.8 x max. 4.7 (mm))

SOT539A
(41.2 x 10.2 x max. 4.7 (mm))

SOT539AN
(41.2 x 10.2 x max. 4.7 (mm))

SOT539B
(32.3 x 10.2 x max. 4.7 (mm))



SOT539BN
(32.3 x 10.2 x max. 4.7 (mm))

SOT1121A
(34.0 x 9.8 x max. 4.7 (mm))

SOT1121B
(20.6 x 9.8 x max. 4.7 (mm))

SOT1135A
(20.3 x 9.8 x max. 4.7 (mm))

SOT1135B
(9.8 x 9.8 x max. 4.7 (mm))

SOT1214A
(34.0 x 9.8 x max. 4.7 (mm))

SOT1214B
(20.6 x 9.8 x max. 4.7 (mm))

SOT1214C
(34.0 x 9.8 x max. 4.7 (mm))

SOT1227A
(14.0 x 4.1 x max. 3.7 (mm))

SOT1227B
(5.1 x 4.1 x max. 3.7 (mm))

SOT1228A
(29.0 x 5.8 x max. 5.2 (mm))

SOT1248C
(32.3 x 10.2 x max. 5.5 (mm))

Air-Cavity Plastic (ACP) packages*

SOT1250-1
(32.2 x 10.1 x max. 4.5 (mm))

SOT1270-1
(20.6 x 9.8 x max. 3.7 (mm))

* Not drawn to scale

Overmolded Plastic (OMP) packages*

DFN-7x6.5-6-1

(7.0 x 6.5 x max. 0.85 (mm))

OMP-400-8F-1

(10.3 x 10.3 x max. 4.0 (mm))

OMP-780-4F-1

(20.75 x 9.96 x max. 4.0 (mm))

OMP-780-4G-1

(20.75 x 9.96 x max. 4.0 (mm))

OMP-1230-4F-1

(32.34 x 9.96 x max. 4.0 (mm))

OMP-1230-4G-1

(32.34 x 9.96 x max. 4.0 (mm))

OMP-1230-6F-2

(32.25 x 9.78 x max. 4.0 (mm))

TO-270-2F-1

(10.67 x 6.1 x max. 2.0 (mm))

TO-270-2G-1

(10.67 x 6.1 x max. 2.0 (mm))

SOT1211-3

(20.75 x 9.96 x max. 4.0 (mm))

* Not drawn to scale

Committed to your **success**

At Ampleon, we are passionate about your success. Rest assured that we deliver world class innovation for a broad range of applications. In line with your challenges increasing, we continuously improve and enhance our LDMOS technology and strengthen our footprint in GaN.

During the entire process from design to delivery, you will enjoy outstanding technical support from well trained staff and knowledgeable Field Application Engineers (FAEs) as part of our distribution network. Whether you require load-pull data, application boards, samples, ADS / AWR models or other, you will be accompanied in every step on the way to success.

Our application engineering resources are spread around the globe, with our offices (Nijmegen / The Netherlands, Toulouse / France, Smithfield / USA, Shanghai / China) providing local customer support.

Support

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