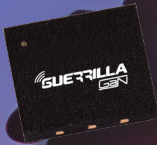
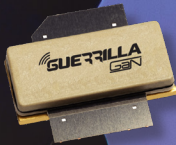


GUERRILLA GaN





Guerrilla RF® offers a comprehensive portfolio of GaN on SiC high-efficiency power amplifiers engineered for demanding high-power RF applications. Available in both packaged and bare die formats, these solutions deliver rated output power from 5 W to 600 W across frequencies spanning near-DC to X-band.

Designed to meet the needs of telecommunications, defense, radar, and satellite communications systems, Guerrilla RF's GaN portfolio combines high output power, efficiency, and reliability in a versatile range of solutions. With broad frequency coverage and multiple power levels, these amplifiers help customers simplify design, improve system performance, and address the growing demand for next-generation RF power solutions.



GRF Product Status Key	■ PRODUCTION	■ PRE-PRODUCTION	■ DESIGN	■ R&D
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50V GaN-ON-SiC BARE DIE

GRF Part Number	Description	Paths	Type	Frequency (GHz)	P _{SAT} (W)	Gain (dB)	Efficiency (%)	Voltage (V)
NEW! GRF0010D	10W GaN HEMT Die	Single	Unmatched Discrete	DC-8.0	10	20	61	28/50
NEW! GRF0020D	20W GaN HEMT Die	Single	Unmatched Discrete	DC-7.0	20	21	63	28/50
NEW! GRF0030D	30W GaN HEMT Die	Single	Unmatched Discrete	DC-6.0	30	21	64	28/50
GRF0060D	60W GaN HEMT Die	Single	Unmatched Discrete	DC-3.7	60	21	64	28/50
GRF0080D	80W GaN HEMT Die	Single	Unmatched Discrete	DC-3.7	80	21	66	28/50
GRF0090D	90W GaN HEMT Die	Single	Unmatched Discrete	DC-3.7	90	22	67	28/50
GRF0135D	135W GaN HEMT Die	Single	Unmatched Discrete	DC-3.2	135	19	66	28/50
GRF0160D	160W GaN HEMT Die	Single	Unmatched Discrete	DC-3.2	160	19	65	28/50
GRF0200D	200W GaN HEMT Die	Single	Unmatched Discrete	DC-2.7	200	15	64	28/50
GRF0250D	250W GaN HEMT Die	Single	Unmatched Discrete	DC-2.7	250	15	64	28/50

DISCRETE WIDEBAND GaN AMPLIFIERS IN QFN/DFN PLASTIC PACKAGING

GRF Part Number	Description	Paths	Type	Frequency (GHz)	P _{SAT} (W)	Gain (dB)	Efficiency (%)	Voltage (V)	Package (mm)
NEW! GRF0005	5W GaN HEMT	Single	Unmatched Discrete	DC-12.0	5	22	67	28	3.0 QFN-16
NEW! GRF0012	12W GaN HEMT	Single	Unmatched Discrete	DC-12.0	12	21	66	28	3.0 QFN-16
NEW! GRF0010	15W GaN HEMT	Single	Unmatched Discrete	DC-8.0	15	19	62	28/50	3.0 QFN-16
NEW! GRF0020	30W GaN HEMT	Single	Unmatched Discrete	DC-7.0	30	19	64	28/50	3.0 QFN-16
NEW! GRF0065	80W GaN HEMT	Single	Unmatched Discrete	DC-3.7	80	21.9	66	28/50	3x6 DFN-14
NEW! GRF0090	110W GaN HEMT	Single	Unmatched Discrete	DC-3.7	110	21.6	66	28/50	3x6 DFN-14
NEW! GRF0135	150W GaN HEMT	Single	Unmatched Discrete	DC-3.2	150	19	64	28/50	3x6 DFN-14
GRF5923	35W GaN HEMT Pair	Dual	Unmatched Discrete	DC-6.0	35	14	55	28/50	4.0 QFN-24
GRF0030	50W GaN HEMT	Single	Unmatched Discrete	DC-6.0	50	21	65	28/50	3.0 QFN-16
GRF0021	100W GaN HEMT	Single	Unmatched Discrete	4.4-5.0	20	13	50	28/50	3.0 QFN-16
GRF0050	50W GaN HEMT Pair	Dual	Unmatched Discrete	DC-5.0	50	13	45	28/50	3x6 DFN-14
GRF0100	100W GaN HEMT Pair	Dual	Unmatched Discrete	DC-5.0	100	12	44	28/50	3x6 DFN-14

DISCRETE WIDEBAND GaN AMPLIFIERS IN ACC PACKAGING

GRF Part Number	Description	Paths	Type	Frequency (GHz)	P _{SAT} (W)	Gain (dB)	Efficiency (%)	Voltage (V)	Package (mm)
GRF0015	15W GaN HEMT	Single	Unmatched Discrete	DC-8.0	15	20	63	28/50	ACC NI-200
GRF0051	50W GaN HEMT	Single	Unmatched Discrete	DC-6.0	50	19	66	28/50	ACC NI-360
GRF0110	110W GaN HEMT	Single	Unmatched Discrete	DC-3.7	110	21	65	28/50	ACC NI-360
GRF0150	150W GaN HEMT	Single	Unmatched Discrete	DC-3.2	150	18	70	28/50	ACC NI-360
GRF0031	30W GaN HEMT	Single	Unmatched Discrete	DC-7.0	30	19	68	28/50	ACC NI-360
GRF0081	80W GaN HEMT	Single	Unmatched Discrete	DC-3.7	80	19	68.6	28/50	ACC NI-360
GRF0101	100W GaN HEMT	Single	Unmatched Discrete	DC-2.5	100	16	70	28/50	ACC NI-360
GRF0180	180W GaN HEMT Pair	Single	Unmatched Discrete	DC-3.2	180	18	66	28/50	ACC NI-650

PULSED RADAR GaN AMPLIFIERS

GRF Part Number	Description	Type	Band	Frequency (GHz)	P _{SAT} (W)	Gain (dB)	Efficiency (%)	Voltage (V)	Package (mm)
GRF0512	125W GaN HEMT	Pre-matched Discrete	S-Band	2.7-3.3	125	15	63	50	ACP 462 2L
GRF0315	250W GaN HEMT	Pre-matched Discrete	S-Band	2.7-3.3	150	17	67	50	6.5x7 DFN-6
GRF0125	250W GaN HEMT	Pre-matched Discrete	S-Band	2.7-3.1	250	15.5	64	50	ACP 462 2L
GRF0525	250W GaN HEMT	Pre-matched Discrete	S-Band	3.1-3.5	250	16	65	50	ACP 462 2L
GRF0415	150W GaN HEMT	Pre-matched Discrete	L-Band	1.0-1.4	150	18	75	50	6.5x7 DFN-6
GRF0450	500W GaN HEMT	Pre-matched Discrete	L-Band	1.2-1.4	500	18	66	50	ACP 800 4L
GRF0250	500W GaN HEMT	Pre-matched Discrete	L-Band	0.96-1.215	500	18	66	50	ACP 800 4L
GRF0905	50W GaN HEMT	Gflex / 1 stage	X-Band	9.1-9.9	50	14	51	28/50	7x6 LGA
GRF0910	100W GaN HEMT	Gflex / 1 stage	X-Band	9.1-9.9	100	22	42	28/50	10x12 LGA

ISM CW GaN AMPLIFIERS

GRF Part Number	Description	Paths	Symmetric / Asymmetric	Type	Bands	Frequency (GHz)	P _{SAT} (W)	Gain (dB)	Efficiency (%)	Voltage (V)	Package (mm)
GRF0505	27W GaN HEMT Pair	Dual	Symmetric	Pre-matched Discrete	ISM	2.4-2.5	27 (single path) 55 (dual path)	18	70	50	6.5x7 DFN-6
GRF0530	300W GaN HEMT	Single	-	Pre-matched Discrete	ISM	2.4-2.5	150	18	73	50	ACP 8004L
GRF0560	600W GaN HEMT	Single	-	Pre-matched Discrete	ISM	2.4-2.5	250	17	73	50	ACP 1600 4L

DISCRETE GaN AMPLIFIERS IN DFN PACKAGES FOR mMIMO DOHERTY APPLICATIONS

GRF Part Number	Description	Paths	Symmetric / Asymmetric	Type	Bands	Frequency (GHz)	P _{SAT} (W)	P _{AVG} (W)	Gain (dB)	Efficiency (%)	Voltage (V)	Package (mm)
GRF0805	50W GaN HEMT Pair	Dual	Asymmetric	Pre-matched Discrete	n48, n77, n78	3.3-3.8	125	7	15	52	50	6.5x7 DFN-6
GRF0710	100W GaN HEMT Pair	Dual	Asymmetric	Pre-matched Discrete	n40, n41	2.3-2.7	150	14	15	57	50	6.5x7 DFN-6
GRF0810	100W GaN HEMT Pair	Dual	Asymmetric	Pre-matched Discrete	n48, n77, n78	3.3-3.8	250	14	14	51	50	6.5x7 DFN-6
GRF0205	50W GaN HEMT Pair	Dual	Asymmetric	Pre-matched Discrete	n77	3.7-4.2	250	7	14	50	50	6.5x7 DFN-6
GRF0210	100W GaN HEMT Pair	Dual	Asymmetric	Pre-matched Discrete	n77	3.7-4.2	150	14	13.5	48	50	6.5x7 DFN-6
GRF0021	20W GaN HEMT	Single	-	Pre-matched Discrete	n79	4.4-5.0	500	-	13	50	50	3x6 DFN-14
GRF0070	70W GaN HEMT Pair	Dual	Asymmetric	Pre-matched Discrete	n79	4.4-5.0	500	7	13	42	50	3x6 DFN-14
GRF0050	50W GaN HEMT Pair	Dual	Asymmetric	Unmatched Discrete	Multiple	DC-5.0	50	8	13	45	50	3x6 DFN-14
GRF0100	100W GaN HEMT Pair	Dual	Asymmetric	Unmatched Discrete	Multiple	DC-5.0	100	15	12	44	50	3x6 DFN-14

DUAL PATH ASYMMETRICAL DOHERTY GaN FINALS IN ACP PACKAGES FOR MACRO BASESTATION APPLICATIONS

GRF Part Number	Description	Type	Bands	Frequency (GHz)	P _{SAT} (W)	P _{AVG} (W)	Gain (dB)	Efficiency (%)	Voltage (V)	Package (mm)
GRF0240	400W GaN HEMT Pair	Pre-matched Discrete	n1, n2, n3	1.8-2.2	400	56	17	56	50	ACP 8004L
GRF0740	400W GaN HEMT Pair	Pre-matched Discrete	n40, n41	2.3-2.7	400	56	15	53	50	ACP 8004L
GRF0845	450W GaN HEMT Pair	Pre-matched Discrete	n48, n77, n78	3.3-3.8	450	56	13	45	50	ACP 8004L

DUAL PATH SYMMETRIC (BALANCED) GaN DRIVERS IN DFN PACKAGES FOR MACRO BASESTATION APPLICATIONS

GRF Part Number	Description	Type	Bands	Frequency (GHz)	P _{SAT} (W)	P _{AVG} (W)	Gain (dB)	Efficiency (%)	Voltage (V)	Package (mm)
GRF0706	60W GaN HEMT	Pre-matched Discrete	n40, n41	2.3-2.7	60	-	17	65	50	6.5x7 DFN-6
GRF0806	60W GaN HEMT	Pre-matched Discrete	n48, n77, n78	3.3-3.8	60	-	16	70	50	6.5x7 DFN-6
GRF0809	90W GaN HEMT	Pre-matched Discrete	n48, n77, n78	3.3-3.8	90	-	15	65	50	6.5x7 DFN-6
GRF0709	90W GaN HEMT	Pre-matched Discrete	n40, n41	2.3-2.7	90	-	16	65	50	6.5x7 DFN-6
GRF0714	140W GaN HEMT	Pre-matched Discrete	n40, n41	2.3-2.7	140	-	15	65	50	6.5x7 DFN-6
GRF0814	140W GaN HEMT	Pre-matched Discrete	n48, n77, n78	3.3-3.8	140	-	14	65	50	6.5x7 DFN-6



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