



Wolfspeed GaN Transistor Pairing with Controller & Switch

Sizing is based on individual GaN Peak Power Output and the current drawn determines the size of the MOS Switch. Multiple GaN devices per single MOS Switch is allowed if total current do not exceed the maximum. The list assumes that devices are operating in CW.

November 2016

Model Number	Freq min (GHz)	Freq max (GHz)	Gain (dB)	Pout (W)	Vds (V)	Typ Eff (%)	Ids (A)	MOS size (A) min	Controller	Switch (Pulsed or CW)	Eval Board, Drop-In (Pulsed or CW)	Eval Board, Removable (Pulsed Only)
<u>CGH09120F</u>	UHF	2.5	21	120	28	60%	7.14	14.3	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGH21120F</u>	1.8	2.3	15	120	28	60%	7.14	14.3	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGH21240F</u>	1.8	2.3	15	240	28	60%	14.29	28.6	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGH25120F</u>	2.3	2.7	13	120	28	55%	7.79	15.6	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGH27015</u>	VHF	3	14.5	15	28	50%	1.07	2.1	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH27030</u>	VHF	3	15	30	28	50%	2.14	4.3	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH27030S</u>	0	6	18	30	28	50%	2.14	4.3	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH27060</u>	VHF	3	14	60	28	50%	4.29	8.6	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E
<u>CGH31240</u>	2.7	3.1	12	240	28	50%	17.14	34.3	100X,200X	362P,365C		
<u>CGH35015</u>	3.3	3.9	12	15	28	50%	1.07	2.1	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH35030</u>	3.3	3.9	12	30	28	50%	2.14	4.3	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH35060F1/P1</u>	3.3	3.9	12	60	28	50%	4.29	8.6	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E
<u>CGH35060F2/P2</u>	3.1	3.5	12	60	28	50%	4.29	8.6	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E
<u>CGH35240</u>	3.1	3.5	11.6	240	28	50%	17.14	34.3	100X,200X	362P,365C		
<u>CGH40006P</u>	0	6	13	8	28	53%	0.54	1.1	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH40006S</u>	0	6	12	8	28	53%	0.54	1.1	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH40010F</u>	0	6	14.5	12.5	28	55%	0.81	1.6	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH40010P</u>	0	6	14.5	12.5	28	55%	0.81	1.6	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH40025F</u>	0	6	13	30	28	55%	1.95	3.9	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH40035F</u>	0	4	14	45	28	50%	3.21	6.4	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH40045F</u>	0	4	14	55	28	45%	4.37	8.7	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E
<u>CGH40090PP</u>	0	4	12.5	100	28	45%	7.94	15.9	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGH40120F</u>	0	4	19	120	28	55%	7.79	15.6	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGH40180PP</u>	0	2.5	19	220	28	56%	14.03	28.1	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGH55015F2</u>	4.5	6	12	12.5	28	50%	0.89	1.8	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGH55030F2</u>	4.5	6	11	30	28	50%	2.14	4.3	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV14250F</u>	1.2	1.4	18	330	50	63%	10.48	21.0	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGHV14500F</u>	1.2	1.4	17	500	50	60%	16.67	33.3	100X,200X	362P,365C		
<u>CGHV14800</u>	1.2	1.4	14	800	50	60%	26.67	53.3	100X,200X			
<u>CGHV1F006S</u>	0	18	16	8	40	55%	0.36	0.7	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV1F025S</u>	0	15	16	29	40	55%	1.32	2.6	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV22100F</u>	1.8	2.2	20	100	50	50%	4.00	8.0	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV22200F</u>	1.8	2.2	18	200	50	50%	8.00	16.0	100X,200X	362P,365C	630E,640E	762E,765E



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Model Number	Freq min (GHz)	Freq max (GHz)	Gain (dB)	Pout (W)	Vds (V)	Typ Eff (%)	Ids (A)	MOS size (A) min	Controller	Switch (Pulsed or CW)	Eval Board, Drop-In (Pulsed or CW)	Eval Board, Removable (Pulsed Only)
<u>CGHV27015S</u>	0	6	21	15	50	50%	0.60	1.2	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV27030S</u>	0	6	21	30	50	50%	1.20	2.4	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV27060MP</u>	0	2.7	16.5	80	50	50%	3.20	6.4	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV27100F</u>	2.5	2.7	18	100	50	50%	4.00	8.0	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV27200F</u>	2.5	2.7	15	200	50	50%	8.00	16.0	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGHV31500F</u>	2.7	3.1	12.8	500	50	62%	16.13	32.3	100X,200X	362P,365C		
<u>CGHV35060MP</u>	2.7	3.5	14.5	75	50	67%	2.24	4.5	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV35150F</u>	2.9	3.5	13.3	170	50	44%	7.73	15.5	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGHV35400F</u>	2.9	3.5	11	455	45	48%	21.06	42.1	100X,200X	362P,365C		
<u>CGHV40030F</u>	0	6	16	30	50	60%	1.00	2.0	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV40050F</u>	0	4	12.5	50	50	50%	2.00	4.0	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV40100F</u>	0	3	11	116	50	54%	4.30	8.6	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E
<u>CGHV40100P</u>	0	4	11	116	50	54%	4.30	8.6	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E
<u>CGHV50200F</u>	4.4	5	13	180	50	35%	10.29	20.6	100X,200X	362P,365C	630E,640E	762E,765E
<u>CGHV59070</u>	4.5	5.9	12	70	50	50%	2.80	5.6	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV59350F</u>	5.2	5.9	11.2	450	50	54%	16.67	33.3	100X,200X	362P,365C		
<u>CGHV96050F1</u>	7.9	9.6	17	32	40	37%	2.16	4.3	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV96050F2</u>	7.9	9.6	10	70	40	45%	3.89	7.8	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CGHV96100F2</u>	7.9	9.6	10.2	131	40	45%	7.28	14.6	100X,200X	362P,365C	630E,640E	762E,765E
<u>CMPA0060002F</u>	0	6	17	2	28	23%	0.31	0.6	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CMPA0060025F</u>	0	6	17	25	50	24%	2.08	4.2	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CMPA1D1E025F</u>	13.8	14.5	26	25	40	18%	3.47	6.9	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CMPA2560025F</u>	2.5	6	24	25	28	30%	2.98	6.0	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CMPA2735075D</u>	2.7	3.5	28	75	28	55%	4.87	9.7	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E
<u>CMPA2735075F</u>	2.7	3.5	27	75	28	50%	5.36	10.7	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E
<u>CMPA5585025D</u>	5.5	8.5	30	40	28	40%	3.57	7.1	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CMPA5585025F</u>	5.5	8.5	25	35	28	20%	6.25	12.5	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E
<u>CMPA601C025F</u>	6	12	33	25	28	25%	3.57	7.1	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CMPA801B025D</u>	8	11	28	35	28	30%	4.17	8.3	100X,200X	392P,395C,332P,335C	610E,620E	792E,795E,732E,735E
<u>CMPA801B025F</u>	8	11	16	37	28	30%	4.40	8.8	100X,200X	332P,335C,362P,365C	630E,640E	732E,735E,762E,765E