

eGaN FETs and ICs, and Evaluation Boards



eGaN FETs and ICs (15 V–80 V)

Part Number	Configuration	V _{DS} max	V _{GS} max	Max R _{DS(on)} (mΩ) @ 5 V _{GS}	Q _G typ (nC)	Q _{GS} typ (nC)	Q _{GD} typ (nC)	Q _{OSS} typ (nC)	Q _{RR} (nC)	C _{ISS} (pF)	C _{OSS} (pF)	C _{RSS} (pF)	I _D (A)	Pulsed I _D (A)	Max T _J (°C)	Package (mm)	Development Board
EPC2040	Single	15	6	30	0.745	0.23	0.14	0.42	0	86	67	20	3.4	28	150	BGA 0.85 x 1.2	n/a
EPC2216	Single–AEC-Q101	15	6	26	0.87	0.21	0.13	0.53	0	98	66	20	3.4	28	150	BGA 0.85 x 1.2	EPC9144
EPC2111	Half Bridge	30	6	19 8	1.7 4.5	0.6 1.4	0.3 0.8	3.3 9.6	0	190 495	170 490	21 8	16	50 140	150	BGA 3.5 x 1.5	EPC9086
EPC2100	Half Bridge	30	6	8.2 2.1	3.6 15	1.3 4.8	0.6 2.7	6.1 29	0	395 1630	290 1370	15 64	10 40	100 400	150	BGA 6.05 x 2.3	EPC9036
EPC2023	Single	30	6	1.45	19	5.7	3.2	30	0	2150	1530	100	90	590	150	LGA 6.05 x 2.3	EPC9031
EPC8004	Single	40	6	110	0.37	0.12	0.047	0.63	0	45	23	0.8	4	7.5	150	LGA 2.05 x 0.85	EPC9066
EPC2014C	Single	40	6	16	2	0.7	0.3	4	0	220	150	6.5	10	60	150	LGA 1.7 x 1.1	EPC9005C
EPC2015C	Single	40	6	4	8.7	2.7	1.2	19	0	980	710	18	53	235	150	LGA 4.1 x 1.6	n/a
EPC2055	Single	40	6	3.6	6.6	2.3	0.7	13	0	841	408	8.8	29	161	150	LGA 2.5 x 1.5	EPC90132
EPC2030	Single	40	6	2.4	17	5.8	3.4	32	0	1960	1120	62	48	490	150	BGA 4.6 x 2.6	n/a
EPC2069	Single	40	6	2.25	12.5	3.9	2.4	32	0	1351	1044	32	80	422	150	LGA 3.25 x 3.25	EPC90139
EPC2067	Single	40	6	1.55	17.1	5.3	2	37	0	2178	1071	24	69	409	150	LGA 2.85 x 3.25	EPC90138
EPC2024	Single	40	6	1.5	18	5.1	2.4	45	0	1920	1620	29	90	560	150	LGA 6.05 x 2.3	n/a
EPC2066	Single	40	6	1.1	25	8.9	3.2	59	0	3539	1670	30	90	639	150	LGA 6.05 x 2.3	EPC90149
EPC2057	Single	50	6	8.5	3	1.2	0.5	8	0	383	172	3	9.6	66	150	LGA 1.5 x 1.2	EPC90155
EPC2035	Single	60	6	45	0.88	0.25	0.16	2.6	0	95	60	2	1.7	24	150	BGA 0.9 x 0.9	EPC9049
EPC2102	Half Bridge	60	6	4.9	8	2.5	1.5	26 31	0	850	500 610	11	30	220	150	BGA 6.05 x 2.3	EPC9038
EPC2031	Single	60	6	3	16	5	3	48	0	1640	980	35	48	450	150	BGA 4.6 x 2.6	EPC9061
EPC2101	Half Bridge	60	6	11.5 2.8	3.3 13	1.1 3.9	0.5 2.2	9.3 45	0	300 1200	200 1000	5 25	10 40	80 350	150	BGA 6.05 x 2.3	EPC9037
EPC2020	Single	60	6	2.2	16	3.9	2.3	50	0	1780	1020	24	90	470	150	LGA 6.05 x 2.3	EPC9033
EPC2219	Single with Gate Diode–AEC-Q101	65	6	3300	0.044	0.02	0.004	0.104	0	7	2	0.025	0.5	0.5	150	BGA 0.9 x 0.9	n/a
EPC8002	Single	65	6	480	0.133	0.057	0.015	0.344	0	20	6.7	0.12	2	2	150	LGA 2.05 x 0.85	EPC9022
EPC8009	Single	65	6	130	0.37	0.12	0.055	0.94	0	45	19	0.5	4	7.5	150	LGA 2.05 x 0.85	EPC9067
EPC2203	Single–AEC-Q101	80	5.75	80	0.67	0.22	0.12	3.6	0	73	47	0.5	1.7	17	150	BGA 0.9 x 0.9	n/a
EPC2039	Single	80	6	25	1.91	0.76	0.42	7.64	0	210	115	2	6.8	50	150	BGA 1.35 x 1.35	EPC9057
EPC2214	Single–AEC-Q101	80	6	20	1.8	0.5	0.3	8	0	198	129	1.8	10	47	150	BGA 1.35 x 1.35	n/a
EPC2202	Single–AEC-Q101	80	5.75	17	3.2	1	0.55	18	0	345	230	3	18	75	150	LGA 2.1 x 1.6	n/a
EPC2252	Single–AEC-Q101	80	6	11	3.5	1	0.5	15	0	440	190	1.3	8.2	75	150	BGA 1.5 x 1.5	EPC9179
EPC2103	Half Bridge	80	6	5.5	6.5	2.2	1.1	30 34	0	730	445 525	7	30	195	150	BGA 6.05 x 2.3	EPC9039
EPC2204A	Single–AEC-Q101	80	6	6	5.7	1.8	0.8	25	0	644	304	2.3	29	125	150	LGA 2.5 x 1.5	n/a
EPC2065	Single	80	6	3.6	9.4	2.6	1.7	33	0	1097	534	8.9	60	215	150	LGA 3.5 x 2	EPC90137
EPC2029	Single	80	6	3.2	13	3.4	1.9	53	0	1410	820	17	48	360	150	BGA 4.6 x 2.6	n/a
EPC2218A	Single–AEC-Q101	80	6	3.2	10.5	3.2	1.5	46	0	1189	562	4.3	60	231	150	LGA 3.5 x 1.95	n/a
EPC2105	Half Bridge	80	6	14.5 3.6	2.7 11	0.9 3	0.5 2.1	11 51	0	300 1170	170 780	3 12	10 40	70 300	150	BGA 6.05 x 2.3	EPC9041
EPC2021	Single	80	6	2.2	15	4.1	3	72	0	1610	1100	15	90	390	150	LGA 6.05 x 2.3	n/a
EPC2206	Single–AEC-Q101	80	6	2.2	15	4.1	3	72	0	1610	1100	15	90	390	150	LGA 6.05 x 2.3	EPC90122
UP1966E	Half Bridge Driver IC	80														BGA 1.6 x 1.6	EPC90123

eGaN FETs and ICs (100 V–350 V)

Part Number	Configuration	V _{DS} max	V _{GS} max	Max R _{DS(on)} (mΩ) @ 5 V _{GS}	Q _G typ (nC)	Q _{GS} typ (nC)	Q _{GD} typ (nC)	Q _{OSS} typ (nC)	Q _{RR} (nC)	C _{ISS} (pF)	C _{OSS} (pF)	C _{RSS} (pF)	I _D (A)	Pulsed I _D (A)	Max T _J (°C)	Package (mm)	Development Board
EPC2038	Single with Gate Diode	100	6	3300	0.044	0.02	0.004	0.134	0	7	1.6	0.02	0.5	0.5	150	BGA 0.9 x 0.9	EPC9507
EPC2037	Single	100	6	550	0.115	0.032	0.025	0.6	0	14	6.5	0.1	1.7	2.4	150	BGA 0.9 x 0.9	EPC9061
EPC2107	Dual with Sync Boot	100	6	390 3300	0.19 0.044	0.077 0.02	0.041 0.004	0.9/1.25 0.134	0	16 7	17 1.6	0.3 0.02	1.7 0.5	3.8 0.5	150	BGA 1.35 x 1.35	EPC9063
EPC8010	Single	100	6	160	0.36	0.13	0.06	2.2	0	43	25	0.3	4	7.5	150	LGA 2.05 x 0.85	EPC9068
EPC2036	Single	100	6	73	0.7	0.17	0.14	3.9	0	75	50	0.7	1.7	18	150	BGA 0.9 x 0.9	EPC9050
EPC2106	Half Bridge	100	6	70	0.73	0.24	0.140	3.96 4.68	0	79	52 61	0.5	1.7	18	150	BGA 1.35 x 1.35	EPC9055
EPC2221	Dual Common Source - AEC Q101	100	6	58	0.85	0.27	0.19	4.7	0	94	63	0.9	5	20	150	BGA 1.35 x 1.35	n/a
EPC2007C	Single	100	6	30	1.6	0.6	0.3	8.3	0	170	110	1.9	6	40	150	LGA 1.7 x 1.1	n/a
EPC2051	Single	100	6	25	1.8	0.6	0.3	7.3	0	224	86	1	1.7	37	150	LGA 1.3 x 0.85	EPC9091
EPC2016C	Single	100	6	16	3.4	1.1	0.55	16	0	360	210	3.2	18	75	150	LGA 2.1 x 1.6	n/a
EPC2212	Single - AEC-Q101	100	6	13.5	3.2	0.9	0.6	18	0	339	238	3	18	75	150	LGA 2.1 x 1.6	n/a
EPC2052	Single	100	6	13.5	3.5	1.5	0.5	13	0	441	195	3.2	8.2	74	150	BGA 1.5 x 1.5	EPC9092
EPC2044	Single	100	6	10.5	4.3	1.3	0.5	15	0	503	196	1.8	9.4	89	150	BGA 2.5 x 1.5	EPC90128
EPC2045	Single	100	6	7	6	1.9	0.8	25	0	767	295	3	16	130	150	BGA 2.5 x 1.5	n/a
EPC2001C	Single	100	6	7	7.5	2.4	1.2	31	0	770	430	10	36	150	150	LGA 4.1 x 1.6	n/a
EPC2104	Half Bridge	100	6	6.8	6.8	2.3	1.4	35 41	0	730	430 500	5	30	180	150	BGA 6.05 x 2.3	EPC9040
EPC2204	Single	100	6	6	5.7	1.8	0.8	25	0	644	304	2.3	29	125	150	LGA 2.5 x 1.5	EPC9097
EPC2032	Single	100	6	4	12	3	2	66	0	1270	800	12	48	340	150	BGA 4.6 x 2.6	n/a
EPC2053	Single	100	6	3.8	11.4	4.1	1.5	45	0	1453	642	10.4	48	246	150	BGA 3.5 x 2	n/a
EPC2306	Single	100	6	3.8	11.0		1.1	41	0	1544	482	3.4	48	197	150	QFN 3 x 5	EPC90145
EPC2619	Single	100	6	3.3	8.3	2.1	1	27	0	1180	310	3	29	164	150	LGA 2.5 x 1.5	EPC90153
EPC2022	Single	100	6	3.2	13.2	3.4	2.4	71	0	1400	840	7	90	390	150	LGA 6.05 x 2.3	n/a
EPC2218	Single	100	6	3.2	10.5	3.2	1.5	46	0	1189	562	4.3	60	231	150	LGA 3.5 x 1.95	EPC90123
EPC2088	Single	100	6	3.2	12.5	4.4	1.4	47	0	1864	557	3.6	60	231	150	LGA 3.5 x 1.95	EPC90123
EPC2071	Single	100	6	2.2	18	6	1.8	71	0	2664	878	5.4	64	350	150	LGA 4.45 x 2.3	EPC90146
EPC2302	Single	100	6	1.8	23	8	2.3	85	0	3200	1000	7	101	408	150	QFN 3 x 5	EPC90133/ EPC90142
EPC2361	Single	100	6	1.0 (typ)	28	7.2	2.5	86	0	4094	1147	12	101	519	150	QFN 3 x 5	EPC90156
EPC2110	Dual Common Source	120	6	110	0.8	0.25	0.18	4	0	85	45	1	3.4	20	150	BGA 1.35 x 1.35	EPC9058
EPC2033	Single	150	6	7	12	3.8	3.2	90	0	1160	480	6	48	260	150	BGA 4.6 x 2.6	EPC9047
EPC2308	Single	150	6	6	11	3.8	1.3	50	0	1454	405	2.6	48	157	150	QFN 3 x 5	EPC90148
EPC2305	Single	150	6	4	21	6.3	2.6	105	0	2900	920	7	80	329	150	QFN 3 x 5	EPC90143
EPC2234	Single - AEC Q101	160	5.5	8	11.1	3.8	2.0	96	0	1155	641	3.1	48	213	150	BGA 4.6 x 2.6	n/a
EPC2059	Single	170	6	9	5.7	1.3	0.9	35	0	633	267	1.6	24	102	150	LGA 2.8 x 1.4	EPC9098
EPC2012C	Single	200	6	100	1	0.3	0.2	10	0	100	64	0.4	5	22	150	LGA 1.7 x 0.9	EPC9004C
EPC2019	Single	200	6	50	1.8	0.6	0.35	18	0	200	110	0.7	8.5	42	150	LGA 2.77 x 0.95	n/a
EPC2054	Single	200	6	43	2.9	0.9	0.30	15	0	358	89	0.3	3.0	32	150	BGA 1.3 x 1.3	EPC9094
EPC2010C	Single	200	6	25	3.7	1.3	0.7	40	0	380	240	1.8	22	90	150	LGA 3.6 x 1.6	n/a
EPC2207	Single	200	6	22	4.5	1.3	0.7	23	0	454	130	0.7	14	54	150	LGA 2.8 x 0.9	EPC90124
EPC2307	Single	200	6	10	10.6		1.3	58	0	1401	326	1.2	48	130	150	QFN 3 x 5	EPC90150
EPC2215	Single	200	6	8	13.6	3.3	2.1	69	0	1356	390	2	32	162	150	LGA 4.6 x 1.6	EPC9099
EPC2034C	Single	200	6	8	11.4	3.8	2.1	95	0	1166	630	2.8	48	213	150	BGA 4.6 x 2.6	n/a
EPC2304	Single	200	6	5	21	0.0	2.6	115	0	2786	649	2.4	102	260	150	QFN 3 x 5	EPC90140
EPC2050	Single	350	6	80	2.9	1.3	0.3	35	0	423	81	0.3	6.2	26	150	BGA 1.95 x 1.95	EPC90121

Rad Hard GaN FETs

Part Number	Configuration	V _{DS} max	V _{GS} max	Max R _{DS(on)} (mΩ) @ 5 V _{GS}	Q _G typ (nC)	Q _{GS} typ (nC)	Q _{GD} typ (nC)	Q _{OSS} typ (nC)	Q _{RR} (nC)	C _{ISS} (pF)	C _{OSS} (pF)	C _{RSS} (pF)	I _D (A)	Pulsed I _D (A)	Max T _J (°C)	Package (mm)	Development Board
EPC7019	Single – Rad Hard	40	6	1.5	22	7.6	3.4	51	0	2830	1660	35	85	530	150	LGA 6.05 x 2.3	n/a
EPC7001	Single – Rad Hard	40	6	4	11	3.6	1.7	26	0	1342	792	14	60	250	150	LGA 4.1 x 1.6	n/a
EPC7002	Single – Rad Hard	40	6	14.5	2.9	1	0.4	6.6	0	349	201	3.8	10	62	150	LGA 1.7 x 1.1	n/a
EPC7014	Single – Rad Hard	60	7	340	142	43	25	764	0	16	17	0.1	2	4	150	BGA 0.9 x 0.9	n/a
EPC7003	Single – Rad Hard	100	6	30	1.8	0.6	0.3	9.4	0	230	119	0.6	10	42	150	LGA 1.7 x 1.1	n/a
EPC7004	Single – Rad Hard	100	6	7	6.4	2.2	1.1	37	0	817	485	2.3	60	160	150	LGA 4.1 x 1.6	n/a
EPC7018	Single – Rad Hard	100	6	3.9	15.2	4	2.6	77	0	1828	1025	5.8	90	345	150	LGA 6.05 x 2.3	n/a
EPC7007	Single – Rad Hard	200	6	25	5.4	1.5	1	37	0	525	256	1.5	20	80	150	LGA 3.6 x 1.6	n/a
EPC7020	Single – Rad Hard	200	6	11	11.7	3.5	2.2	76.0	0	1137	494	2.6	39	170	150	BGA 4.6 x 2.6	n/a

GaN FETs with Pb/Sn solder terminations

Part Number	Configuration	V _{DS} max	V _{GS} max	Max R _{DS(on)} (mΩ) @ 5 V _{GS}	Q _G typ (nC)	Q _{GS} typ (nC)	Q _{GD} typ (nC)	Q _{OSS} typ (nC)	Q _{RR} (nC)	C _{ISS} (pF)	C _{OSS} (pF)	C _{RSS} (pF)	I _D (A)	Pulsed I _D (A)	Max T _J (°C)	Package (mm)	Development Board
EPC2901C_55	Single	100	6.0	7	6.9	1.9	1.4	45	0	756	493	9.25	36	150	150	BGA 4.1 x 1.6	n/a
EPC29215_55	Single	200	6.0	8	13.6	3.3	2.1	69	0	1356	390	2	32	162	150	BGA 4.6 x 1.6	n/a
EPC2934C	Single	200	6.0	8	11.1	3.8	2.0	96	0	1155	641	3.1	39	213	150	BGA 4.6 x 2.6	n/a

eGaN® Integrated Circuits

ePower™ Stage

Part Number	Configuration	Function	VPwr	I _{OUT}	I _{OUT} Peak	V _{DD}	Input Logic	F (Max)	UVLO	Package (mm)	Development Board
EPC2152	Half-Bridge ePower™ Stage	ePower™ Stage	80	12.5	90	12	3.3 V	3 MHz	7.5	LGA 3.9 x 2.6	EPC90120
EPC23101	HS FET + Driver + Level Shift	ePower™ Stage	100	65	240	6	5.5 V	3 MHz	0.5–4	QFN 3.5 x 5	EPC90142
EPC23102	HS FET + Driver + Level Shift	ePower™ Stage	100	35	140	6	5.5 V	3 MHz	0.5–4	QFN 3.5 x 5	EPC90147
EPC23103	HS FET + Driver + Level Shift	ePower™ Stage	100	25	61	6	3.3 V or 5 V	3 MHz	0.5–4	QFN 3.5 x 5	EPC90151
EPC23104	HS FET + Driver + Level Shift	ePower™ Stage	100	15	44	6	3.3 V or 5 V	3 MHz	0.5–4	QFN 3.5 x 5	EPC90152

eToF™ Laser Driver IC

Part Number	Configuration	Function	VPwr	I _{OUT}	I _{OUT} Peak	V _{DD}	Input Logic	F (Max)	UVLO	Package (mm)	Development Board
EPC21601	Single	eToF™ Laser Driver	40	3.7	10	5	3.3 V	200 MHz	0	BGA 1 x 1.5	EPC9154
EPC21603	Single	eToF™ Laser Driver	40	3.7	10	5	LVDS	200 MHz	0	BGA 1 x 1.5	EPC9156
EPC21701	Single	eToF™ Laser Driver	80	7.2	15	5	3.3 V	50 MHz	0	BGA 1.7 x 1	EPC9172
EPC21702	Single	eToF™ Laser Driver	100	7.2	30	5 and 10	3.3 V	10 MHz	0	BGA 1.66 x 1.46	n/a

Half-Bridge Evaluation Boards

(30–80 V)

Half-Bridge Evaluation Board			Featured Product				
Part Number	I _{OUT}	Gate Driver	Featured Product	Part Status	FET Configuration	FET V _{DS} max	FET I _D (A)
EPC9036	28	LMS113(1)	EPC2100	Active	Half Bridge	30	10 / 40
EPC9059	50	LMS113(1)	EPC2100	Active	Half Bridge	30	10 / 40
EPC9066	2.7	LMS113(1)	EPC8004	Active	Single	40	4
EPC9005C	7	LMS113(1)	EPC2014C	Active	Single	40	10
EPC90138	40	uP1966E	EPC2067	Preferred	Single	40	80
EPC90139	40	uP1966E	EPC2069	Preferred	Single	40	69
EPC90149	40	uP1966E	EPC2066	Preferred	Single	40	90
EPC9049	4	LMS113(1)	EPC2024	Active	Single	60	1.7
EPC9038	20	LMS113(1)	EPC2102	Preferred	Half Bridge	60	30
EPC9037	22	LMS113(1)	EPC2101	Active	Half Bridge	60	10 / 40
EPC9061	24	LMS113(1)	EPC2031	Active	Single	60	48
EPC9022	2.7	LMS113(1)	EPC8002	Active	Single	65	4
EPC9057	1.6	LMS113(1)	EPC2039	Active	Single	65	2
EPC90120	6	LMS113(1)	EPC2152	Active	Single	80	6.8
EPC9039	10	Integrated	EPC2103	ENGR	GaN IC	80	15
EPC9041	20	LMS113(1)	EPC2105	Preferred	Half Bridge	80	30
EPC90153	20	LMS113(1)	EPC2619	Active	Half Bridge	80	10 / 40
EPC90122	20	uP1966E	EPC2206	Preferred	Single	80	29

Half-Bridge Evaluation Boards *continued*

(100–350 V)

Half-Bridge Evaluation Board			Featured Product				
Part Number	I _{OUT}	Gate Driver	Featured Product	Part Status	FET Configuration	FET V _{DS} max	FET I _D (A)
EPC90156	65	uP1966E	EPC2361	ENGR	Single	100	101
EPC90135	45	uP1966E	EPC2218	Preferred	Single	100	60
EPC90123	25	uP1966E	EPC2218	Preferred	Single	100	60
EPC9097	15	uP1966E	EPC2204	Preferred	Single	100	29
EPC9087	1	LMS113 ⁽¹⁾	EPC2037	Active	Single	100	1.7
EPC9063	1.5	LMS113 ⁽¹⁾	EPC2107	Active	Dual with Sync Boot	100	1.7 / 0.5
EPC9050	2.5	LMS113 ⁽¹⁾	EPC2036	Active	Single	100	1.7
EPC9068	2.7	LMS113 ⁽¹⁾	EPC8010	Active	Single	100	4
EPC9055	3	LMS113 ⁽¹⁾	EPC2106	Preferred	Half Bridge	100	1.7
EPC9091	4	uP1966E	EPC2051	Preferred	Single	100	1.7
EPC9092	5	LM1205	EPC2052	Preferred	Single	100	8.2
EPC90152	14	Integrated	EPC23104	ENGR	GaN IC	100	15
EPC90128	14	uP1966E	EPC2044	Preferred	Single	100	9.4
EPC9040	15	LMS113 ⁽¹⁾	EPC2104	Preferred	Half Bridge	100	30
EPC90151	15	Integrated	EPC23103	ENGR	GaN IC	100	25
EPC90154	25	uP1966E	EPC2088	Preferred	Single	100	60
EPC90147	22	Integrated	EPC23102	ENGR	GaN IC	100	35
EPC90145	45	uP1966E	EPC2306	Preferred	Single	100	48
EPC90133	40	uP1966E	EPC2032	Preferred	Single	100	101
EPC90146	45	uP1966E	EPC2071	Preferred	Single	100	64
EPC90142	65	Integrated	EPC23101 / EPC2302	ENGR	GaN IC	100	65
EPC90148	30	NCP51820	EPC2308	ENGR	Single	150	48
EPC90143	25	NCP51820	EPC2305	ENGR	Single	150	80
EPC9098	17	LMG1210	EPC2059	Preferred	Single	170	24
EPC9004C	2	NCP51820	EPC2012C	Active	Single	200	5
EPC90150	20	NCP51820	EPC2307	ENGR	Single	200	48
EPC90140	30	NCP51820	EPC2304	ENGR	Single	200	102
EPC90121	4	NCP51820	EPC2050	Preferred	Single	350	6.2

⁽¹⁾ Use LMG1205 instead, LMS113 has been discontinued by TI

Application-Specific Evaluation Boards: DC-DC Conversion

Part Number	Description	V _{IN}	V _{OUT}	I _{OUT} (A)	Featured Product
EPC9163	Synchronous, Buck or Boost, digital controller	Buck: 20 – 60 V Boost: 11.3 – 16 V	Buck: 5– 16 V Boost: 20– 50 V	140 A (Buck)	EPC2218
EPC9165	Synchronous, Buck or Boost, digital controller, QFN-packaged GaN FETs	Buck: 20 – 60 V Boost: 11.3 – 16 V	Buck: 5– 16 V Boost: 20– 50 V	140 A (Buck)	EPC2302
EPC9170	Synchronous, Buck, digital controller, GaN power IC	Buck: 20– 60 V	Buck: 5– 16 V	Buck: 140 A	EPC23101 , EPC2302
EPC9174	Small (1/8 th Brick), LLC, fixed ratio 1:4, bi-directional, for servers	48– 60 V	10– 15 V	100 A	EPC2071 , EPC2066
EPC9159	Small, High-Power-Density, Bi-directional LLC, for servers	Partial Power: 12– 52 V Through Power: 9 – 40 V	12 V	83 A (PP)	EPC2619 , EPC2067
EPC9158	Small, Synchronous Buck, analog controller	14– 54 V	12 V	50 A	EPC2218
EPC90135	Parallel, half-bridge (4 parallel FETs)	up to 80 V	up to 80 V	45 A	EPC2218
EPC9166	Boost, analog controller	9– 28 V	Configurable: 36 V, 48 V, 60 V	16 A @ 36 V 11 A @ 48 V 8 A @ 60 V	EPC2218
EPC9157	Small (1/16 th Brick), Synchronous Buck, analog controller, with motherboard	18– 60 V	12 V	25 A	EPC2218
EPC9143	Small (1/16 th Brick), Synchronous Buck, digital controller, with motherboard	18– 60 V	12 V	25 A	EPC2053
EPC9151	Small (1/16 th Brick), Synchronous Buck or Boost, featuring PowerStage GaN IC, digital controller, with motherboard	Buck: 18 – 60 V Boost: 12–15 V	Buck: 12 V Boost: 48 V	Buck: 25 A Boost: 5.5 A	EPC2152

Application-Specific Evaluation Boards: DC-DC Conversion (continued)

Part Number	Description	V _{IN}	V _{OUT}	I _{OUT} (A)	Featured Product
EPC9195	High efficiency, small, single-phase, buck converter	36 - 60 V	13 V	16 A	EPC2619
EPC9153	Thin, 1-phase Buck	44– 60 V	12– 20 V	12.5 A	EPC2218
EPC9177	Synchronous, Buck, digital controller, GaN power IC	12– 64 V	12 V	20 A	EPC23102
EPC9148	Ultra-thin, Multi-level, Synchronous, Buck	44– 60 V	19 V	12.5 A	EPC2053
EPC9160	Dual Output, analog controller, Synchronous, Buck	9– 24 V	Dual Output: 5 V / 3.3 V	15 A	EPC2055
EPC9162	Boost or buck, synchronous	Boost: 12 V Buck: 48 V	Boost: 60 V Buck: 12 V	Boost: 0.85 A Buck: 5 A	EPC2052

Application-Specific Evaluation Boards: Lidar

Part Number	Default Configuration	Description	V _{BUS} (max)	V _{INPUT} (max)	T _{pin} (min)	Max Pulse (A) (min)	Featured Product
EPC9144	IToF	High Current Pulsed Laser Diode Driver Demo Board	12 V	5 V	1 ns	28	EPC2216
EPC9154	IToF	High Current Pulsed Laser Diode Driver Demo Board	40 V	5 V	2 ns	10	EPC21601
EPC9156	IToF	High Current Pulsed Laser Diode Driver Demo Board	40 V	5 V	2 ns	10	EPC21603
EPC9172	IToF	High Current Pulsed Laser Diode Driver Demo Board	60 V	5 V	2 ns	15	EPC21701
EPC9179	Resonant Pulse DToF	High Current Pulsed Laser Diode Driver Demo Board	70 V	5 V	2 ns	75	EPC2252
EPC9181	Resonant Pulse DToF	High Current Pulsed Laser Diode Driver Demo Board	70 V	5 V	2 ns	125	EPC2204A
EPC9180	Resonant Pulse DToF	High Current Pulsed Laser Diode Driver Demo Board	70 V	5 V	2 ns	230	EPC2218A
EPC9150	Resonant Pulse DToF	High Current Pulsed Laser Diode Driver Demo Board	160 V	5 V	1 ns	220	EPC2034C

Application-Specific Evaluation Boards: Motor Drive

Part Number	Description	V _{IN}	I _{Phase} (A _{RMS})	f _{sw} (kHz)	Featured Product
EPC9176	20 A _{RMS} 3-Phase BLDC Motor Drive Reference Design Board	14–65	20	20–250	EPC23102
EPC9193	20 A _{RMS} 3-Phase BLDC Motor Drive Reference Design Board	14 - 65	20	50-250	EPC2619
EPC9193HC	40 A _{RMS} 3-Phase BLDC Motor Drive Reference Design Board	14 - 65	40	50-250	EPC2619
EPC9194	40 A _{RMS} 3-Phase BLDC Motor Drive Reference Design Board	14 - 65	40	20–250	EPC2302
EPC9173	35 A _{RMS} 3-Phase BLDC Motor Drive Reference Design Board	20–85	35	20–250	EPC23101
EPC9186	150 A _{RMS} 3-Phase BLDC Motor Drive Reference Design Board	14 - 60	150	20 - 120	EPC2302

Application-Specific Evaluation Boards: AC/DC Conversion

Part Number	Description	Class	Output Power	Operating Frequency	Featured Product
EPC9171	90–265 V _{RMS} Universal AC Input to 15 V–48 V _{DC} , 5 A Output USB PD3.1	90–265 VAC _{RMS}	15–48 VDC	5 A	EPC2218

Application-Specific Evaluation Boards: Class-D Audio

Part Number	Description	Output Power	Distortion/Output Noise	Frequency Response	Featured Product
EPC9192	2 x 700 W/4 Ω Class-D Amplifier	700 W / 4 Ω	< 0.004% THD+N, > 100 Db	5 Hz - 20 kHz +/- 0.5 dB	EPC2307

Schematics, bill of materials, and gerber files for all evaluation boards are available at <https://epc-co.com/epc/products/evaluation-boards>



For More Information

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