



Figure 5: Development Board Schematic
See Table 3 on variable components

Table 2 : Bill of Material

Item	Qty	Reference	Part Description	Manufacturer / Part #
1	3	C4, C10, C11	Capacitor, 1uF, 10%, 25V, X5R	Murata, GRM188R61E105KA12D
2	2	C6, C7	Capacitor, 100pF, 5%, 50V, NP0	Kemet, C0402C101K5GACTU
3	1	C12	Capacitor, 22nF, 10%, 25V, X5R	TDK, C1005X5R1E223K050BA
4	1	C14	Capacitor, 0.1uF, 10%, 25V, X5R	TDK, C1005X5R1E104K
5	3	C16, C17, C18	Capacitor, - SEE TABLE 3	SEE TABLE 3
6	1	C13	Capacitor, 1uF, 10%, 25V, X5R	Murata, GRM188R61E105KA12D
7	1	C21	Capacitor, - SEE TABLE 3	SEE TABLE 3
8	2	D1, D2	Schottky Diode, 30V	Diodes Inc., SDM03U40-7
9	3	J1, J2, J9	Connector	2pins of Tyco, 4-103185-0
10	6	J3, J4, J5, J6, J7, J8	Connector	FCI, 68602-224HLF
11	2	Q1, Q2	eGaN® FET - SEE TABLE 3	SEE TABLE 3
12	1	R1	Resistor, 10.0K, 5%, 1/8W	Stackpole, RMCF0603FT10K0
13	2	R2, R15	Resistor, 0 Ohm, 1/8W	Stackpole, RMCF0603ZTOR00
14	2	R4,R5	Resistor, 7.5 Ohm, 5%, 1/16W	Stackpole, RMCF0603JT7R50
15	2	TP1, TP2	Test Point	Keystone Elect, 5015
16	1	U1	I.C., Logic	Fairchild, NC7SZ00L6X
17	1	U2	I.C., Gate driver	Texas Instruments, LM5113
18	1	U3	I.C., Regulator	Microchip, MCP1703T-5002E/MC
19	1	U4	I.C., Logic	Fairchild, NC7SZ08L6X
20	0	HS1	Optional Heatsink	HeatSink15mmX15mm
21	0	R14, R22	Optional Resistor	
22	0	P1,P2	Optional Potentiometer	PV37Y

Table 3: Variable BOM Components

Board Number	Item	Qty	Reference	Part Description	Manufacturer / Part #
EPC9022	5	3	C16, C17, C18	Capacitor, 0.01uF, 20%, 100V, X5R	TDK, C1005X7S2A103M050BB
	7	1	C21	Capacitor, 1uF, 10%, 100V, X7R	TDK, C1005X5R1H104K050BB
	11	2	Q1, Q2	eGaN® FET	EPC8002
EPC9023	5	3	C16, C17, C18	Capacitor, 0.01uF, 20%, 100V, X5R	TDK, C1005X7S2A103M050BB
	7	1	C21	Capacitor, 1uF, 10%, 100V, X7R	TDK, CGA4J3X7S2A105K125A
	11	2	Q1, Q2	eGaN® FET	EPC8003
EPC9024	5	3	C16, C17, C18	Capacitor, 0.1uF, 20%, 50V, X5R	TDK, C1005X5R1H104K050BB
	7	1	C21	Capacitor, 4.7uF, 10%, 50V, X5R	TDK, C2012X5R1H475K125AB
	11	2	Q1, Q2	eGaN® FET	EPC8004
EPC9025	5	3	C16, C17, C18	Capacitor, 0.01uF, 20%, 100V, X5R	TDK, C1005X7S2A103M050BB
	7	1	C21	Capacitor, 1uF, 10%, 100V, X7R	TDK, CGA4J3X7S2A105K125A
	11	2	Q1, Q2	eGaN® FET	EPC8005
EPC9027	5	3	C16, C17, C18	Capacitor, 0.1uF, 20%, 50V, X5R	TDK, C1005X5R1H104K050BB
	7	1	C21	Capacitor, 4.7uF, 10%, 50V, X5R	TDK, C2012X5R1H475K125AB
	11	2	Q1, Q2	eGaN® FET	EPC8007
EPC9028	5	3	C16, C17, C18	Capacitor, 0.1uF, 20%, 50V, X5R	TDK, C1005X5R1H104K050BB
	7	1	C21	Capacitor, 4.7uF, 10%, 50V, X5R	TDK, C2012X5R1H475K125AB
	11	2	Q1, Q2	eGaN® FET	EPC8008
EPC9029	5	3	C16, C17, C18	Capacitor, 0.01uF, 20%, 100V, X5R	TDK, C1005X7S2A103M050BB
	7	1	C21	Capacitor, 1uF, 10%, 100V, X7R	TDK, CGA4J3X7S2A105K125A
	11	2	Q1, Q2	eGaN® FET	EPC8009
EPC9030	5	3	C16, C17, C18	Capacitor, 0.01uF, 20%, 100V, X5R	TDK, C1005X7S2A103M050BB
	7	1	C21	Capacitor, 1uF, 10%, 100V, X7R	TDK, CGA4J3X7S2A105K125A
	11	2	Q1, Q2	eGaN® FET	EPC8010