


Document reference:		Product reference:					
June/17/2024 Vers.2.0		EVLSTDRIVEG610Q					
www.st.com				 life.augmented			
STMicroelectronics							
All resistors are 1% tolerance unless otherwise indicated							
All capacitors are X7R or COG dielectric unless otherwise indicated							
Index	Quantity	Reference	Description	Value	Package	Manufacturer	Manufacturer's ordering code
1	3	CN1,CN2,CN3	Tab FASTON 250 Horizontal	N.M.	Pitch 5,08mm	(TE Connectivity)	(63951-1 or equivalent)
2	2	CN4,CN5	MMCX, VERTICAL JACK, 50 Ohm	MMCX JACK	MMCX SMD Vertical	WURTH ELEKTRONIK	66012102111404 or equivalent
3	1	C1	SMT ceramic capacitor	10uF/25V/X7R	Size 1206	WURTH ELEKTRONIK	885012208069 or equivalent
4	2	C2,C3	SMT ceramic capacitor	220nF/630V/X7R	Size 2225		
5	1	C4	THT Electrolytic Capacitor	N.M.	Diam. 22 p. 10		
6	1	C5	Capacitor	N.M.	Pitch 37.5 mm, 22.5x41.5 mm	(WURTH ELEKTRONIK)	(890 324 028 008 CS or equivalent)
7	1	C6	Capacitor	N.M.	Pitch 27.5 mm, 22x32 mm		
8	1	C7	SMT ceramic capacitor	47nF/50V/X7R	Size 0805	WURTH ELEKTRONIK	885012207096 or equivalent
9	2	C8,C14	SMT ceramic capacitor	47nF/16V/X7R	Size 0603	WURTH ELEKTRONIK	885012206093 or equivalent
10	4	C9,C18,C21,C23	SMT ceramic capacitor	100nF/25V/X7R	Size 0603	WURTH ELEKTRONIK	885012206071 or equivalent
11	2	C10,C11	SMT ceramic capacitor	N.M.	Size 0603		
12	5	C12,C13,C16,C17,C25	SMT ceramic capacitor	10pF/50V/NP0	Size 0603	WURTH ELEKTRONIK	885012006051 or equivalent
13	1	C15	SMT ceramic capacitor	N.M.	Size 0603		
14	2	C19,C20	SMT ceramic capacitor	1uF/10V/X7R	Size 0603	WURTH ELEKTRONIK	885012206026 or equivalent
15	2	C22,C24	SMT ceramic capacitor	100pF/50V/X7R	Size 0603	WURTH ELEKTRONIK	885012206077 or equivalent
16	1	D1	Turbo 2 ultrafast high voltage rectifier	STTH1R06A	SMA	STMicroelectronics	STTH1R06A or equivalent
17	2	D2,D3	Turbo 2 Ultrafast High Voltage Rectifier	N.M.	SMA	STMicroelectronics	STTH1L06A or equivalent
18	2	D4,D5	Low capacitance, low series inductance and resistance Schottky diodes	BAT54J	SOD-323	STMicroelectronics	BAT54JFILM or equivalent
19	1	J1	Strip connector 12 pos, 2.54 mm	STRIP 1x12	1x12 pins	WURTH ELEKTRONIK	61301211121 or equivalent
20	1	J2	Terminal block T.H. 2 positions, 3.5 mm	MORSV-350-2P_screw	Pitch 3,5 mm	WURTH ELEKTRONIK	691214110002 or equivalent
21	1	J3	Strip connector 2 pos, 2.54 mm	STRIP 1x2	1x2 pins	WURTH ELEKTRONIK	61300211121 or equivalent
22	3	J4,J5,J6	Strip connector 3 pos, 2.54 mm	STRIP 1x3	1x3 pins	WURTH ELEKTRONIK	61300311121 or equivalent
23	1	J7	Strip connector 4 pos, 2.54 mm	N.M.	1x4 pins	(WURTH ELEKTRONIK)	(61300411121 or equivalent)
24	1	Net1		N.M.			
25	2	Q1,Q2	650 V, 80 mO, 15 A, e-mode PowerGaN transistor	SGT120R65AL	PowerFLAT 5x6 HV for Power GaN	STMicroelectronics	SGT120R65AL
26	1	R1	SMT resistor	2R2	Size 0805		
27	2	R2,R7	SMT resistor	33R	Size 0603		
28	2	R3,R4	SMT resistor	1R	Size 0603		
29	5	R5,R6,R8,R9,R13,R18	SMT resistor	0R	Size 0603		
30	2	R10,R12	SMT resistor	N.M.	Size 0603		
31	7	R11,R22,R25,R26,R28,R31	SMT resistor	N.M.	Size 0603		
32	5	R14,R19,R24,R27,R30	SMT resistor	0R	Size 0603		
33	2	R15,R16	SMT resistor	10k	Size 0603		
34	1	R17	SMT resistor	39k	Size 0603		
35	1	R20	SMT resistor	205k	Size 0603		
36	1	R21	SMT resistor	120k	Size 0603		
37	2	R23,R29	SMT resistor	47R	Size 0603		
38	1	R32	SMT resistor	47k	Size 0603		
39	17	TP1,TP2,TP3,TP4,TP5,TP6,TP7,TP8,TP9,TP10,TP11,TP12,TP13,TP14,TP17,TP18,TP19	TP for Probe	N.M.	Diam. 1.27, Hole 0.8mm		
40	2	TP15,TP16	50 mils SMD PAD	TP-SMD-diam1_27mm	Copper pad		
41	2	TR1,TR2	1/4" Square Trimpot trimming potentiometer, Top Adjust	1K	3266W	Bourns	3266W-1-1021F or equivalent
42	1	U1	High voltage, high speed half-bridge GaN gate driver	STDRIVEG610	QFN18-0.5 4x5mm	STMicroelectronics	STDRIVEG610Q
43	1	U2	High input voltage, 85 mA LDO linear regulator	ST715MR	SOT23-5L	STMicroelectronics	ST715MR or equivalent
44	1	U3	SINGLE 2 INPUT POSITIVE EXCLUSIVE OR GATE	74LVC1G86Q	SOT23-5L	Diodes Incorporated	74LVC1G86QW5-7 or equivalent
45	1	U4	2-input single supply translating EXCLUSIVE-NOR gate	74LV1T87GV	SOT23-5L	Nexperia	74LV1T87GV or equivalent