

RD Number: RD190

RD Title: TC78B042FTG Evaluation Circuit BOM

Item No.	Designator	Quantity	Value	Part Number	Manufacturer	Description	Package	Not Mount
1	R1	0	Not mount	—	—			✓
2	R2	0	Not mount	—	—			✓
3	R3	0	Not mount	—	—			✓
4	R4	0	Not mount	—	—			✓
5	R5	0	Not mount	—	—			✓
6	R6	0	Not mount	—	—			✓
7	R7	0	Not mount	—	—			✓
8	R8	0	Not mount	—	—			✓
9	R9	1	Short with jumper	—	—	5mm pitch jumper		
10	R10	1	22kΩ	—	—	Chip resistor		
11	R11	1	10kΩ	—	—	Chip resistor		
12	R12	0	Not mount	—	—			✓
13	R13	1	10kΩ	—	—	Chip resistor		
14	R14	0	Not mount	—	—			✓
15	R15	1	10kΩ	—	—	Chip resistor		
16	R16	0	Not mount	—	—			✓
17	R17	1	10kΩ	—	—	Chip resistor		
18	R18	1	10kΩ	—	—	Chip resistor		
19	R19	1	510Ω	—	—	Chip resistor		
20	R20	1	510Ω	—	—	Chip resistor		
21	R21	0	Not mount	—	—			✓
22	R22	0	Not mount	—	—			✓
23	C1	1	10μF/50V	—	—	Capacitor		
24	C2	1	0.1μF/50V	—	—	Chip capacitor		
25	C3	1	0.1μF/50V	—	—	Chip capacitor		
26	C4	0	Not mount	—	—			✓
27	C5	1	0.01μF/50V	—	—	Chip capacitor		
28	C6	1	0.001μF/50V	—	—	Chip capacitor		
29	C7	1	0.001μF/50V	—	—	Chip capacitor		
30	C8	1	0.001μF/50V	—	—	Chip capacitor		
31	C9	1	0.01μF/50V	—	—	Chip capacitor		
32	C10	1	0.01μF/50V	—	—	Chip capacitor		
33	C11	1	0.01μF/50V	—	—	Chip capacitor		

34	C12	1	0.1μF/50V	—	—	Chip capacitor		
35	SW1	1	Toggle switch	—	—	Toggle switch		
36	SW2	1	Toggle switch	—	—	Toggle switch		
37	SW3	1	Toggle switch	—	—	Toggle switch		
38	SW4	1	Toggle switch	—	—	Toggle switch		
39	IC1	1	TC78B042FTG	TC78B042FTG	TOSHIBA	Brushless Motor Controller	QFN32	
40	J1	0	Not mount	—	—			✓
41	J2	0	Not mount	—	—			✓
42	J3	0	Not mount	—	—			✓
43	J4	0	Not mount	—	—			✓
44	VR1	1	100kΩ	—	—	Variable resistor		
45	VR2	1	100kΩ	—	—	Variable resistor		
46	VR3	1	100kΩ	—	—	Variable resistor		
47	VR4	1	100kΩ	—	—	Variable resistor		
48	VR5	1	100kΩ	—	—	Variable resistor		
49	CN1	0	Not mount	—	—			✓
50	CN2	0	Not mount	—	—			✓
51	CN3	2	Terminal Block 3pin×2	—	—	5.08mm pitch terminal block		
52	CN4	1	Terminal Block 3pin×1	—	—	5.08mm pitch terminal block		
53	CN5	0	Not mount	—	—			✓
54	CN6	3	Terminal Block 3pin×3	—	—	5.08mm pitch terminal block		
55	P1	1	Short	—	—	Short split land with solder		
56	P2	1	Short	—	—	Short split land with solder		
57	P3	0	Open	—	—	Open		✓
58	P4	0	Open	—	—	Open		✓
59	P5	0	Open	—	—	Open		✓
60	P6	0	Open	—	—	Open		✓
61	P7	0	Open	—	—	Open		✓
62	P8	0	Open	—	—	Open		✓
63	P9	0	Open	—	—	Open (back side)		✓
64	TP	1	GND	—	—	Check terminal		
65	TP	1	GND	—	—	Check terminal		
66	TP	1	VREF	—	—	Check terminal		
67	TP	1	GND	—	—	Check terminal		
68	TP	1	FG	—	—	Check terminal		
69	TP	1	VSP	—	—	Check terminal		
70	TP	1	GND	—	—	Check terminal		
71	TP	1	VCC	—	—	Check terminal		
72	TP	1	GND	—	—	Check terminal		
73	TP	1	HICU	—	—	Check terminal		
74	TP	1	HICV	—	—	Check terminal		
75	TP	1	HICW	—	—	Check terminal		

76	TP	1	HIC1/2	—	—	Check terminal		
77	TP	1	OSCR	—	—	Check terminal		
78	TP	1	HWP	—	—	Check terminal		
79	TP	1	HWM	—	—	Check terminal		
80	TP	1	HVP	—	—	Check terminal		
81	TP	1	HVM	—	—	Check terminal		
82	TP	1	HUP	—	—	Check terminal		
83	TP	1	HUM	—	—	Check terminal		
84	TP	1	RVREF	—	—	Check terminal		
85	TP	1	RGND	—	—	Check terminal		
86	TP	1	LAAJ	—	—	Check terminal		
87	TP	1	LA	—	—	Check terminal		
88	TP	1	LAL	—	—	Check terminal		
89	TP	1	FGC	—	—	Check terminal		
90	TP	0	Not mount (RES)	—	—			✓
91	TP	0	Not mount (RESX)	—	—			✓
92	TP	1	LAS	—	—	Check terminal		
93	TP	1	IDC	—	—	Check terminal		
94	TP	1	RSI	—	—	Check terminal		
95	TP	1	RSG	—	—	Check terminal		
96	TP	1	WL	—	—	Check terminal		
97	TP	1	VL	—	—	Check terminal		
98	TP	1	UL	—	—	Check terminal		
99	TP	1	WH	—	—	Check terminal		
100	TP	1	VH	—	—	Check terminal		
101	TP	1	UH	—	—	Check terminal		
102	TP	0	Not mount (CWCCW)	—	—			✓
103	TP	0	Not mount (MODE)	—	—			✓
104	TP	1	TR	—	—	Check terminal		
105	TP	0	Not mount (VREF2)	—	—			✓

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