

Renesas Solution Starter Kit -24V Motor Control Evaluation System for RX23T-  
24V Inverter Board BOM LIST

Product Name: Renesas Solution Starter Kit - 24V Motor Control Evaluation System for RX23T -  
Board Name : 24V Inverter Board(RTK0EM0001B00012BJ)

Schematic No: R12TU0011EJ0100  
Date: 2016/03/31

No.	Reference	Description	Manufacturer	PartNumber	Qty
1	TB1,2,3,4,5	CONN TAB FAST TIN PCB .250	Tyco Electronics	63824-1	5
2	JP2,3,4,5	CONN HEADER VERT SGL 3POS GOLD	MAC8	WL-8-3P	4
3	SW1,2	SWITCH TOGGLE SPDT VERT	Copal Electronics Inc	ATE1D-2M3-10-Z	2
4	CN1,4	CONN HEADER XH TOP 2POS 2.54MM	JST	B2B-XH-A(LF)(SN)	2
5	D5	DIODE SCHOTTKY 90V 1.5A DO214AC	Vishay	BYS12-90-E3/TR	1
6	C55,59,81	LAMINATED CERAMIC CAPACITOR(C1608/100pF/50V/J)	MURATA	GRM1882C1H101JA01D	3
7	C73,74	LAMINATED CERAMIC CAPACITOR(C1608/1000pF/50V/K)	MURATA	GRM188B11H102KA01D	2
8	C21,37,41, 43,44,46, 48,49,51, 53,57,62, 63,70,71, 72,76	LAMINATED CERAMIC CAPACITOR(C1608/0.1uF/50V/K)	MURATA	GRM188B31H104KA92D	34
9	C27	LAMINATED CERAMIC CAPACITOR(C1608/22000pF/50V/K)	MURATA	GRM188B11H223KA01D	1
10	C50,52,77	LAMINATED CERAMIC CAPACITOR(C1608/33pF/50V/J)	MURATA	GRM1882C1H330JA01D	3
11	C22	LAMINATED CERAMIC CAPACITOR(C1608/3900pF/50V/K)	MURATA	GRM188B11H392KA01D	1
12	C17	LAMINATED CERAMIC CAPACITOR(C1608/4700pF/50V/K)	MURATA	GRM188B11H472KA01D	1
13	C19	LAMINATED CERAMIC CAPACITOR(C2125/4.7uF/25V/K)	MURATA	GRM21BB31E475KA75L	1
14	C3,7	LAMINATED CERAMIC CAPACITOR(C2125/3300pF/50V/J)	MURATA	GRM2162C1H332JA01D	2
15	C18	LAMINATED CERAMIC CAPACITOR(C2125/0.1uF/100V/K)	TDK	C2012X7R2A104K	1
16	C39,61,69	LAMINATED CERAMIC CAPACITOR(C3216A/10uF/25V/K)	MURATA	GRM31CB31E106KA75	3
17	C38,54,64, 78,80	LAMINATED CERAMIC CAPACITOR(C3216/0.1uF/100V/K)	MURATA	GRM319R72A104KA01D	5
18	C13	CAP ALUM 22UF 20% 100V SMD	Panasonic	EEE-2AA220UP	1
19	D10,11,12, 13,14,15, 16,17,19, 20,21,22, 24,25,26	DIODE SW DBL 80V 100mA SC-70	ROHM	DAN217U	15

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No.	Reference	Description	Manufacturer	PartNumber	Qty
20	VC1	VOLUME CAP	MARVEL	DRD-130D95-1T	1
21	C26	CAP ALUM 1000UF 63V 20% SNAP	Nichicon	LKG1J102MESZBK	1
22	U11	IC COMPARATOR 2-CHANNEL MPAK-8	RENESAS	HA1631D03MMEL-E	1
23	U7,9,10	IC DRIVER HI/LO SIDE 600V 8-SOIC	International Rectifier	IRS2181STRPBF	3
24	J1	CONN POWER JACK 2.1X5.5MM SMD	Kycon	PJ-002AH-SMT-TR	1
25	U5	IC REG LDO 5V 1.5A D2PAK	STMicroelectronics	L7805CD2T-TR	1
26	U4	IC REG BUCK ADJ 1A 14TSSOP	Texas Instruments	LM5010AMHE/NOPB	1
27	S1	SWITCH TOGGLE SPDT 3A PC MNT	NKK SWITCHES	M2T-12AAP1	1
28	Q1,2,3,4,5,6	MOSFET N-CH 60V 100A TO-220	RENESAS	N0602N-S19-AY	6
29	R43,64,69, 85,90	CHIP RESISTOR (R1608/0/1A)	KOA	RK73Z1JTDD	9
30	R39,68,87	CHIP RESISTOR (R1608/4.70/0.1W)	KOA	RK73H1JTDD4R70F	3
31	R37,74,76, 86,89	CHIP RESISTOR (R1608/100/0.1W)	KOA	RK73H1JTDD1000F	5
32	R22	CHIP RESISTOR (R1608/1.0k/0.1W)	KOA	RK73H1JTDD1001F	1
33	R38,45,47, 48,66,71, 83,88,92, 93,94,95, 96,98,101, 105,107,111	CHIP RESISTOR (R1608/10k/0.1W)	KOA	RK73H1JTDD1002F	20
34	R14	CHIP RESISTOR (R1608/120k/0.1W)	KOA	RK73H1JTDD1203F	1
35	R40,77,78	CHIP RESISTOR (R1608/1.8k/0.1W)	KOA	RK73H1JTDD1801F	3
36	R41,75,81	CHIP RESISTOR (R1608/200/0.1W)	KOA	RK73H1JTDD2000F	3
37	R51,53,54, 55,56,103, 104,106	CHIP RESISTOR (R1608/2.0k/0.1W)	KOA	RK73H1JTDD2001F	8
38	R57,58,59, 60,112,114	CHIP RESISTOR (R1608/20k/0.1W)	KOA	RK73H1JTDD2002F	6
39	R84	CHIP RESISTOR (R1608/2.2k/0.1W)	KOA	RK73H1JTDD2201F	1
40	R32,42,46, 49,110	CHIP RESISTOR (R1608/470/0.1W)	KOA	RK73H1JTDD4700F	5
41	R100,108, 113	CHIP RESISTOR (R1608/2.7k/0.1W)	KOA	RK73H1JTDD2701F	3
42	R21	CHIP RESISTOR (R1608/5.1k/0.1W)	KOA	RK73H1JTDD5101F	1

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No.	Reference	Description	Manufacturer	PartNumber	Qty
43	R33	CHIP RESISTOR (R3216/0/2A)	KOA	RK73Z2BTDD	1
44	R35,62,80, 102,109	RES 10K OHM 1/4W 5% 1206 SMD(R3216/10k/0.25W)	Panasonic	ERJ-8GEYJ103V	5
45	R12,13	CHIP RESISTOR (R3216/4.7k/0.25W)	KOA	RK73B2BTDD472J	2
46	R18	RES 0.001 OHM 1W 1% 1210 SMD	Rohm	PMR25HZPFV1L00	1
47	R36,44,63, 70,82,91	RES ANTI-SURGE 10 OHM 5% 1210(R3226/10/0.5W)	Panasonic	ERJ-P14J100U	6
48	R5	RES 10K OHM 1W 5% 2512 SMD(R6432/10k/1W)	Panasonic	ERJ-1TYJ103U	1
49	R50,72,97	RESISTOR .050 OHM 1W 1% 2512	Panasonic	ERJ-L1WKF50MU	3
50	D6,7	DIODE SCHOTTKY 40V 1A SOD-123	Rohm	RB160M-40TR	3
51	U8,12	IC OPAMP DUAL TSSOP8	RENESAS	READ2302GSP#GC0	2
52	D9,18,23	DIODE FAST REC 600V 1.5A SOD-106	Rohm	RFN2L6STE25	3
53	VR1	POT 10k OHM 9MM VERT MET BUSHING	ALPS	RK09L114001T	1
54	CNA,CNB	CONN HEADER 2.54MM 20POS GOLD	Sullins Connector Solutions	SBH11-PBPC-D10-ST-BK	2
55	D4	LED 660NM RED WTR CLR 0805 SMD	Rohm	SML-H12V8TT86	1
56	D8,LED1,2,3	LED 570NM GREEN WTR CLR 0805 SMD	Rohm	SML-H12M8TT86	4
57	L1	INDUCTOR POWER SHIELD 100UH SMD	Bourns	SRN8040-101M	1
58	VR2	TRIMMER 10K OHM 0.25W SMD	Copal	ST-4ETB 10K ohm(103)	1
59	U6	IC REG LDO 3.3V 1A HSOP-3	Rohm	BA33BC0FP-E2	2
60	C16,31,34, 35	CAP 100UF 35V ELECT WT SMD	Nichicon	UWT1V101MCL1GS	6

**Unmounted**

61	C40,60,66, 68	CHIP CAPACITOR(1.6mm * 0.8mm)	N/A	N/A	2
62	C42,45,47, 56,58,65, 67,75,79	CAP FILM (5.50mm * 3.00mm)	N/A	N/A	9
63	R52,73,99	THROUGH HOLE RESISTOR (15.24mm * 1.65mm)	N/A	N/A	3
64	R65,67	CHIP RESISTOR (1.6mm * 0.8mm)	N/A	N/A	2
65	R34,61,79	CHIP RESISTOR (3.2mm * 1.6mm)	N/A	N/A	3

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