



All In One EVB

Date: 09/13/2024

Qty)

Design: RTKA489EPRDE0010BU Version: E

Part Number	Qty	Units	Reference Designator	Manufacturer	Digi-key Part Number	Mouser Part Number	Description	Comments
DX07S024JJ2R1300	1	ea	CN1	JAE Electronics	670-2794-1-ND	656-DX07S024JJ2R1300	CONN RCP USB3.1 TYPEC 24P SMD RA	
GRM155R71E473KA88D	1	ea	C22	Murata Electronics	490-3254-1-ND		CAP CER 0.047UF 25V X7R 0402	
C1608X7S2A683K080AB	1	ea	C9	TDK Corporation	445-6034-1-ND	810-C1608X7S2A683K	CAP CER 0.068UF 100V X7R 0603	
GRM155R71H104KE14J	8	ea	C38b,C319b,C328b,C329b,C424b,C79,C62a,C63a	Murata	490-13342-1-ND	81-GRM155R71H104KE4J	CAP CER 0.1UF 50V X7R 0402	
GRM155R62A104KE14D	1	ea	C78	Murata	490-10458-2-ND		CAP CER 0.1UF 100V X5R 0402	
KGM05AR71A104KH	4	ea	C2,C86,C1,C4	Kyocera AVX	478-KGM05AR71A104KHTR-ND	581-KGM05AR71A104KH	CAP CER 0.1UF 10V X7R 0402	
GRM155R61H474KE11D	2	ea	C30b,C36b	Murata Electronics	490-16354-1-ND		CAP CER 0.47UF 50V X5R 0402	
GRM155R61H224KE01W	1	ea	C35b	Murata Electronics	490-GRM155R61H224KE01WTR-ND		CAP CER 0.22UF 50V X5R 0402	
GRM188R72A104KA35D	3	ea	C81a,C85,C13	Murata Electronics	490-3285-1-ND		CAP CER 0.1UF 100V X7R 0603	
GRM1555C1H100FA01D	1	ea	C43b	Murata Electronics	490-6186-1-ND		CAP CER 10PF 50V C0G/NP0 0402	
CGA2B3X7R1H473K050BB	1	ea	C28b	TDK Corporation	445-6897-1-ND		CAP CER 0.047UF 50V X7R 0402	
GRM188R6YA106MA73D	17	ea	C5b,C6b,C7b,C8b,C9b,C10b,C11b,C12b,C13b,C14b,C22b,C23b,C24b,C40b,C41b,C240b,C241b	Murata Electronics	490-13248-1-ND		CAP CER 10UF 35V X5R 0603	
GRM155R71C102KA01D	1	ea	C61a	Murata Electronics	490-6325-1-ND		CAP CER 1000PF 16V X7R 0402	
GCM155R71H102KA37D	2	ea	C45b,C427b	Murata Electronics	490-4761-1-ND		CAP CER 1000PF 50V X7R 0402	
GRM155R61C105KA12D	2	ea	C67a,C84	Murata Electronics	490-10694-1-ND		CAP CER 1UF 16V X5R 0402	
GRM21BC72A105KE01L	3	ea	C13a,C14a,C7	Murata	490-14464-2-ND	81-GRM21BC72A105KE1L	CAP CER 1UF 100V X7S 0805	
GRM155Z71A105KE01J	1	ea	C3	Murata Electronics	490-GRM155Z71A105KE01JCT-ND		CAP CER 1UF 10V X7R 0402	
GRM155R6YA225ME11D	2	ea	C32b,C33b	Murata	490-18213-1-ND		CAP CER 2.2UF 35V X5R 0402	
GRM155R71H223KA12D	1	ea	C46b	Murata Electronics	490-3884-1-ND		CAP CER 0.022UF 50V X7R 0402	
GRM21BZ71A226ME15L	3	ea	C81,C82,C83	Murata Electronics	490-GRM21BZ71A226ME15LCT-ND		CAP CER 22UF 10V X7R 0805	
C0402C331K8RAC7867	1	ea	C20	KEMET	399-15321-1-ND		CAP CER 330PF 10V X7R 0402	
GCM155R71H331KA37D	2	ea	C16,C21	Murata Electronics	490-11150-1-ND		CAP CER 330PF 50V X7R 0402	
GRM155R72A472KA01D	1	ea	C420b	Murata Electronics	490-3885-1-ND		CAP CER 4700PF 100V X7R 0402	
GRM21BC71H475KE11K	1	ea	C31b	Murata	490-14656-2-ND	81-GRM21BC71H475KE1K	CAP CER 4.7UF 50V X7S 0805	
KGM05CR51C475MH	4	ea	C26b,C37b1,C8,C75	KYOCERA AVX	478-KGM05CR51C475MHCT-ND		CAP CER 4.7UF 16V X5R 0402	
GRT155C81A475ME13J	3	ea	C14,C15,C19	Murata Electronics	490-GRT155C81A475ME13JCT-ND		CAP CER 4.7UF 10V X6S 0402	
GRM188C71A475KE11D	1	ea	C87	Murata Electronics	490-11992-1-ND		CAP CER 4.7UF 10V X7S 0603	
CGA5L1X7R2A475K160AC	3	ea	C5,C77,C80	Murata	445-CGA5L1X7R2A475K160ACTR-ND		CAP CER 4.7UF 100V X7R 1206	
T52M9107M035C0055	2	ea	C2b,C3b	Vishay Sprague	718-T52M9107M035C0055TR-ND		CAP TANT POLY 100UF 35V 2924	
T52E5476M035C0070	1	ea	C184b	Vishay Polytech	718-2222-2-ND		CAP TANT POLY 47UF 35V 2917	
SMAJ30CA	1	ea	D2a	Bourns Inc.	SMAJ30CABCT-ND	652-SMAJ30CA	TVS DIODE 30VWM 48.4VC SMA	
BAT54CFILM	1	ea	D1b	STMicroelectronics	497-3786-2-ND	511-BAT54CFILM	DIODE ARRAY SCHOTTKY 40V SOT23-3	
VS54VLNVWMTR	3	ea	D3,D4,D5	Rohm Semiconductor	846-VS54VLNVWMTRCT-ND	755-VS54VLNVWMTR	54V 200W, COMPACT AND HIGHLY REL	
RB050L-60TE25	1	ea	D16	Rohm Semiconductor	846-RB050L-60TE25CT-ND		DIODE SCHOTTKY 60V 3A PMDS	
RB530CM-40T2R	4	ea	D1,D2,D14,D15	Rohm Semiconductor	846-RB530CM-40T2RDKR-ND	755-RB530CM-40T2R	DIODE SCHOTTKY 40V 100MA VMN2	
SZMMSZ18T1G	1	ea	D9	Onsemi	SZMMSZ18T1GOSTR-ND	863-SZMMSZ18T1G	DIODE ZENER 18V 500MW SOD123	
MBR180S1	2	ea	D10,D12	Diodes Inc.	MBR180S1-7DITR-ND		DIODE SCHOTTKY 80V 1A SOD123	
826926-5	2	ea	J1,JP1	TE Amp	A106484-ND	571-826926-5	CONN HEADER VERT 5POS 2.54MM	
SM04B-SRSS-TB(LF)(SN)	1	ea	J12	JST	455-1804-2-ND	Not Assigned	CONN HEADER SMD R/A 4POS 1MM	
SBH11-PBPC-D05-RA-BK	1	ea	J17	Sullins Connector Solutions	S9177-ND		CONN HEADER R/A 10POS 2.54MM	
61300411121	2	ea	J15,J16	Würth Elect.	732-5317-ND	710-61300411121	CONN HEADER VERT 4POS 2.54MM	
XZVG68W-2	2	ea	LED2b,LED3b	SunLED	1497-1219-1-ND		LED GREEN CLEAR CHIP SMD 0402	
XZMDK68W-2	3	ea	LED0d,LED1d,LED2d	SunLED	1497-1174-1-ND		LED RED CLEAR CHIP SMD 0402	
74439346068	1	ea	L4	Würth Elect.	732-10705-2-ND	710-74439346068	FIXED IND 6.8UH 6.5A 17.6MOHM SM	
CMLS133E-3R3MS-87	1	ea	L1b					will provide
BSZ070N08LS5ATMA1	4	ea	Q1,Q2,Q84,Q85	Infineon	448-BSZ070N08LS5ATMA1TR-ND	726-BSZ070N08LS5ATMA	MOSFET N-CH 80V 40A TSDSON	
SIRA74DP	4	ea	Q1b,Q2b,Q3b,Q4b	Vishay Siliconix	742-SIRA74DP-T1-GE3TR-ND	78-SIRA74DP-T1-GE3	MOSFET N-CH 40V 24A/81.2A PPAK	
SI7469DP-T1-GE3	2	ea	Q3,Q4	Vishay Siliconix	SI7469DP-T1-GE3TR-ND	781-SI7469DP-GE3	MOSFET P-CH 80V 28A PPAK SO-8	
2N7002K-T1-GE3	7	ea	Q5,Q6,Q8b,Q10b,Q81,Q82,Q83	Vishay Siliconix	2N7002K-T1-GE3TR-ND	781-2N7002K-GE3	MOSFET N-CH 60V 300MA TO236	
SI7155DP-T1-GE3	1	ea	Q5b	Vishay Siliconix	SI7155DP-T1-GE3TR-ND	78-SI7155DP-T1-GE3	MOSFET P-CH 40V 31A/100A PPAK	
ERJ-2GE0R00X	29	ea	R150b,R151b,R4b,R12b,R24b,R60,R62,R64,R65,R66,R67,R68,R161b,R162b,R163b,R164b,R165b,R21,R22,R23,R26,R30,R335,R336,R9,R340,R165b1,R345,R346	Panasonic Electronic Components	P0.0JCT-ND		RES SMD 0 OHM JUMPER 1/10W 0402	
HCJ0603ZT0R00	4	ea	R7,R8,R17,R18	Stackpole Electronics Inc	HCJ0603ZT0R00CT-ND	708-HCJ0603ZT0R00	RES 0 OHM JUMPER 1/4W 0603	

CRCW06032R00FKEAHP	5	ea	R1b,R2b,R10b,R14b,R20	Vishay Dale	541-2.00STR-ND	71-CRCW06032R00FKEAH	RES SMD 2 OHM 1% 1/3W 0603	
ESR10EZPJ100	1	ea	R7b	Rohm Semiconductor	RHM10KTR-ND	755-ESR10EZPJ100	RES SMD 10 OHM 5% 0.4W 0805	
RK73H1ETTP4R70F	1	ea	R8b	KOA Speer Electronics, Inc.	2019-RK73H1ETTP4R70FCT-ND		RES 4.7 OHM 1% 1/10W 0402	
ERJ-2RKF1000X	1	ea	R22b	Panasonic Electronic Components	P100LCT-ND		RES SMD 100 OHM 1% 1/10W 0402	
ERJ-2RKF2200X	2	ea	R33b,R34b	Panasonic Electronic Components	P220LCT-ND		RES SMD 220 OHM 1% 1/10W 0402	
ERJ-2RKF4700X	3	ea	R331,R332,R333	Panasonic Electronic Components	P470LCT-ND		RES SMD 470 OHM 1% 1/10W 0402	
ERJ-2RKF6980X	1	ea	R27b	Panasonic Electronic Components	P698LCT-ND		RES SMD 698 OHM 1% 1/10W 0402	
RC0603FR-071K8L	2	ea	R13,R73	YAGEO	311-1.80KHRTR-ND	603-RC0603FR-071K8L	RES 1.8K OHM 1% 1/10W 0603	
ERJ-2RKF1053X	1	ea	R54	Panasonic Electronic Components	P105KLCT-ND		RES SMD 105K OHM 1% 1/10W 0402	
RCC040210K0FKED	7	ea	R15b,R16b,R36b1,R36b2,R36b3,R339,R341	Vishay Dale	541-RCC040210K0FKEDTR-ND		RES 10K OHM 1% 1/8W 0402	
RC0603FR-07118KL	1	ea	R47b	YAGEO	311-118KHRTR-ND	603-RC0603FR-07118KL	RES 118K OHM 1% 1/10W 0603	
RC0603FR-07162KL	1	ea	R48b	YAGEO	311-162KHRTR-ND	603-RC0603FR-07162KL	RES 162K OHM 1% 1/10W 0603	
ERJ-2RKF1001X	2	ea	R27,R31a	Panasonic Electronic Components	P1.00KLCT-ND		RES SMD 1K OHM 1% 1/10W 0402	
ERJ-2RKF2201X	6	ea	R1,R2,R4,R5,R75,R76	Panasonic Electronic Components	P2.20KLCT-ND		RES SMD 2.2K OHM 1% 1/10W 0402	
RK73H1ETTP1872F	1	ea	R25b	KOA Speer Electronics, Inc.	2019-RK73H1ETTP1872FCT-ND		RES 18.7K OHM 1% 1/10W 0402	
ERJ-2RKF2002X	2	ea	R29a,R56	Panasonic Electronic Components	P20.0KLCT-ND		RES SMD 20K OHM 1% 1/10W 0402	
RC0603FR-07215KL	1	ea	R49b	YAGEO	311-215KHRTR-ND	603-RC0603FR-07215KL	RES 215K OHM 1% 1/10W 0603	
RC0603FR-07287KL	1	ea	R50b	YAGEO	311-287KHRTR-ND	603-RC0603FR-07287KL	RES 287K OHM 1% 1/10W 0603	
RC0603FR-103K3L	4	ea	R12,R16,R72,R74	YAGEO	13-RC0603FR-103K3LTR-ND	603-RC0603FR-103K3L	RES 3.3K OHM 1% 1/10W 0603	
ERJ-2RKF4701X	1	ea	R3	Panasonic Electronic Components	P4.70KLCT-ND		RES SMD 4.7K OHM 1% 1/10W 0402	
RMCF0603FT27K0	1	ea	R24	Stackpole Electronics Inc	RMCF0603FT27K0CT-ND		RES 27K OHM 1% 1/10W 0603	
RMCF0603FT9K10	1	ea	R25	Stackpole Electronics Inc	RMCF0603FT9K10CT-ND		RES 9.1K OHM 1% 1/10W 0603	
RMCF0603FT10K0	1	ea	R342	Stackpole Electronics Inc	RMCF0603FT10K0CT-ND		RES 10K OHM 1% 1/10W 0603	
ERJ-2RKF5621X	1	ea	R30a	Panasonic Electronic Components	P5.62KLCT-ND		RES SMD 5.62K OHM 1% 1/10W 0402	
RC0603FR-1052K3L	1	ea	R46b	YAGEO	13-RC0603FR-1052K3LTR-ND	603-RC0603FR-1052K3L	RES 52.3K OHM 1% 1/10W 0603	
ERJ-2RKF5363X	1	ea	R9b	Panasonic Electronic Components	P536KLCT-ND		RES SMD 536K OHM 1% 1/10W 0402	
RC0603FR-136K8L	2	ea	R11,R71	YAGEO	13-RC0603FR-136K8LTR-ND	603-RC0603FR-136K8L	RES 6.8K OHM 1% 1/10W 0603	
ERJ-2RKF1003X	9	ea	R51,R13b,R334,R344,R45b,R36b,R39b,R77,R21b	Panasonic Electronic Components	P100KLCT-ND		RES SMD 100K OHM 1% 1/10W 0402	
RC0603FR-078K2L	2	ea	R10,R70	YAGEO	311-8.20KHRTR-ND	603-RC0603FR-078K2L	RES 8.2K OHM 1% 1/10W 0603	
RC0603FR-0782K5L	1	ea	R23b	YAGEO	311-82.5KHRTR-ND	603-RC0603FR-0782K5L	RES 82.5K OHM 1% 1/10W 0603	
SS-10-16NP-LE	1	ea	SW1b	Nidec	563-1080-ND	229-SS-10-16NP-LE	SWITCH ROTARY DIP SP6T 100MA 5V	
S-8010	2	ea	SW1,SW3	Nidec	563-1053-ND	229-S-8010	SWITCH ROTARY DIP OCTAL 100MA 5V	originally it was S-8110 with knob. Had to switch to S-8010 as alternative
1729018	1	ea	TB1	Phoenix Contact	277-1236-ND	651-1729018	TERM BLK 2POS SIDE ENTRY 5MM PCB	
5010	1	ea	TP1b	Keystone Elect.	36-5010-ND	534-5010	PC TEST POINT MULTIPURPOSE RED	
5011	1	ea	TP2b	Keystone Elect.	36-5011-ND	534-5011	PC TEST POINT MULTIPURPOSE BLACK	
1598-2	1	ea	TP81a	Keystone Elect.	36-1598-2-ND	534-1598-2	TERM TURRET SINGLE L=7.65MM TIN	
R9A02G015	1	ea	U1	Renesas	559-R9A02G015120GNP#AC0-ND	968-02G015020GNP#AC0	USB PD Controller	
RAA489118	1	ea	U1b	Renesas	N/A			
RAA489400	1	ea	U3	Renesas	N/A			
RAA211630GNP#HA0	1	ea	U5	Renesas	20-RAA211630GNP#HA0TR-ND	968-RAA211630GNP#HA0	60V 3A PWM SYNCHRONOUS BUCK REGU	
ISL80101IRAJZ	1	ea	U9a1	Renesas	ISL80101IRAJZ-ND	Mouser-968-ISL80101IRAJZ	IC REG LINEAR POS ADJ 1A 10DFN	
MCS1320R010FER	1	ea	RS1	Ohmite	273-MCS1320R010FERDKR-ND	588-MCS1320R010FER	RES 10M OHM 1% 3/4W 0805	
TLR2BPDTD5L00F75	3	ea	RS2ba,RS2b,RS201b	KOA	2019-TLR2BPDTD5L00F75DKR-ND	660-TLR2BPDTD5L00F75	RES 5M OHM 1% 1.5W 1206	
PMSSS 440 0025 PH	4	ea	Four Corners	B & F Fastener Supply	H703-ND	N/A	Standoff Screws	
2204	4	ea	Four Corners	Keystone Elect.	36-2204-ND	534-2204	Standoffs	
TLRZ2BTDD	1	ea	SH3	KOA Speer Electronics, Inc.	2019-TLRZ2BTDDCT-ND		RES 0 OHM JUMPER 1206	

DNP List								
Part Number	Qty	Units	Reference Designator	Manufacturer	Digikey Part Number	Mouser Part Number	Description	Comments
5010	1	ea	TP90a	Keystone Elect.	36-5010-ND	534-5010	PC TEST POINT MULTIPURPOSE RED	
5011	1	ea	TP91a	Keystone Elect.	36-5011-ND	534-5011	PC TEST POINT MULTIPURPOSE BLACK	
TLRZ2BTDD	2	ea	SH4	KOA Speer Electronics, Inc.	2019-TLRZ2BTDDCT-ND		RES 0 OHM JUMPER 1206	
ISZ0702NLSATMA1	2	ea	Q2a1,Q3a1	Infineon	448-ISZ0702NLSATMA1DKR-ND	726-ISZ0702NLSATMA1	MOSFET N-CH 60V 17A/86A TSDSON	
	1	ea	C19a				68nF, 100V	
	1	ea	C29b					
	1	ea	C34b					
	2	ea	R25b1,R63,R343				0 ohm	
HCJ0603ZT0R00	2	ea	R31,R32	Stackpole Electronics Inc	HCJ0603ZT0R00CT-ND	708-HCJ0603ZT0R00	RES 0 OHM JUMPER 1/4W 0603	
CMLE133B-2R2MSU	1	ea	L1b1					

SIRA74DP	1	ea	Q1b1	Vishay Siliconix	742-SIRA74DP-T1-GE3TR-ND	78-SIRA74DP-T1-GE3	MOSFET N-CH 40V 24A/81.2A PPAK	
	1	ea	R6					
	1	ea	R69					
	1	ea	R19				2.2ohm	
	1	ea	C11				2.2uF, 100V	
	1	ea	C12				4.7uF, 100V	
	1	ea	C10					
	1	ea	C6					
	1	ea	C25					