

REFERENCE DESIGNATOR	QUANTIT	VALUE	DESCRIPTION	PACKAGER PART NUMBER	MANUFACTURER	ALTERNA SUPPL	AVAILABIL	ROHS	ROHS (LEAD FREE STATUS	LEAD FREE STATUS (REACH STATUS (REACH STAT REACH EFI	DESCRIPTION (DIGI-KEY)	MANUFACTURER (DIGI-KEY)	MANUFACTURER PART NUM	DIGI-KEY PART NUMBER (DIGI-KEY)
IPC81	1		Printed Circuit Board	TIDA-01041	Any									
C1, C3, C5, C8, C16, C19, C31, C204	8	1000pF	CAP, CERM, 1000 pF, 100 V, +/- 5%, Cl 0603	C1608C0G2A102J080AA	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP CER 1000PF 100V C0G 06 TDK Corporation	C1608C0G2A102J080AA	445-2312-1-ND
C2, C9, C14, C17, C197, C205	6	0.01uF	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X 0603	06031C103KA72A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 10000PF 100V X7R 0 AVX Corporation	06031C103KA72A	478-1205-1-ND
C4, C15, C30, C201	4	0.015uF	CAP, CERM, 0.015 uF, 25 V, +/- 10%, X 0603	GRM188R71E153KA01D	Murata	Obsolete	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jun-2016	CAP CER 0.015UF 25V X7R 06 Murata Electronics North America	GRM188R71E153KA01D	490-11519-1-ND
C6, C33, C34, C35, C36, C37	6	1uF	CAP, CERM, 1 uF, 100 V, +/- 10%, X7S 0805	C2012X7S2A105K125AB	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 1UF 100V X7S 0805 TDK Corporation	C2012X7S2A105K125AB	445-5205-1-ND
C7, C12, C192, C195	4	0.22uF	CAP, CERM, 0.22 uF, 50 V, +/- 10%, X7 0603	C1608X7R1H224K080AB	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP CER 0.22UF 50V X7R 0603 TDK Corporation	C1608X7R1H224K080AB	445-7408-1-ND
C10, C43, C193	3	2.2uF	CAP, CERM, 2.2 uF, 16 V, +/- 10%, X7F 0805	C2012X7R1C225K125AB	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP CER 2.2UF 16V X7R 0805 TDK Corporation	C2012X7R1C225K125AB	445-1420-1-ND
C11, C47, C48, C173, C179, C180, C182, C183, C194	9	1uF	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	GRM188R71E105KA12D	Murata	Obsolete	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jun-2016	CAP CER 1UF 25V X7R 0603 Murata Electronics North America	GRM188R71E105KA12D	490-5307-1-ND
C13, C72, C73, C74, C75, C82, C83, C98, C102, C190, C191, C196, 16	100pF	CAP, CERM, 100 pF, 50 V, +/- 5%, C0G 0603	C0603C101J5GACTU	Kemet	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 100PF 50V C0G/NP0 KEMET	C0603C101J5GACTU	399-1061-1-ND	
C18, C32, C211, C217	4	100uF	CAP, AL, 100 uF, 100 V, +/- 20%, 0.24 c LHO	EMVH101GDA101MLH0S	Chem-Con	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP ALUM 100UF 20% 100V S1 United Chemi-Con	EMVH101GDA101MLH0S	565-2344-1-ND
C20, C21, C54, C55	4	180uF	CAP, AL, 180 uF, 50 V, +/- 20%, 0.019 c SMD, 2-Lead	PCR1H181MCL1GS	Nichicon	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP ALUM POLY 180UF 20% 5 Nichicon	PCR1H181MCL1GS	493-13774-1-ND
C22, C23, C24, C25, C26, C27, C28, C29, C62, C63, C64, C65, C66 18	4.7uF	CAP, CERM, 4.7 uF, 100 V, +/- 20%, X7 2220	C5750X7R2A475M230KA	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP CER 4.7UF 100V X7R 2220 TDK Corporation	C5750X7R2A475M230KA	445-1450-1-ND	
C38	1	22uF	CAP, AL, 22 uF, 100 V, +/- 20%, 0.55 of JA0	EMVH101ADA220MJA0G	Chem-Con	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP ALUM 22UF 20% 100V SM United Chemi-Con	EMVH101ADA220MJA0G	565-2341-1-ND
C39	1	10uF	CAP, CERM, 10 uF, 100 V, +/- 20%, X7	C5750X7S2A106M230KB	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP CER 10UF 100V X7S 2220 TDK Corporation	C5750X7S2A106M230KB	445-5212-1-ND
C40	1	0.1uF	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7 0805	C2012X7R2A104K125AA	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP CER 0.1UF 100V X7R 0805 TDK Corporation	C2012X7R2A104K125AA	445-1418-1-ND
C41, C44, C84, C91, C93, C94, C189	7	0.1uF	CAP, CERM, 0.1 uF, 100 V, +/- 10%, X7 0603	GRM188R72A104KA35D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 0.1UF 100V X7R 0603 Murata Electronics North America	GRM188R72A104KA35D	490-3285-1-ND
C42	1	180uF	CAP, Aluminum Polymer, 180 uF, 16 V, HCO	APXA160ARA181MHC0G	Chem-Con	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP ALUM POLY 180UF 20% 1 United Chemi-Con	APXA160ARA181MHC0G	565-3078-1-ND
C45	1	330pF	CAP, CERM, 330 pF, 100 V, +/- 5%, C0i 0603	C1608C0G2A331J080AA	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP CER 330PF 100V C0G 060 TDK Corporation	C1608C0G2A331J080AA	445-2309-1-ND
C46	1	0.056uF	CAP, CERM, 0.056 uF, 50 V, +/- 10%, X 0603	GRM188R71H563KA93D	Murata	Obsolete	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jun-2016	GRM188R71H563KA93D Murata Electronics North America	GRM188R71H563KA93D	490-7770-1-ND
C49	1	1500pF	CAP, CERM, 1500 pF, 100 V, +/- 5%, Cl 0603	GRM1885C2A152JA01D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	Complies with Reac	CAP CER 1500PF 100V C0G/NP0 Murata Electronics North America	GRM1885C2A152JA01D	490-8276-1-ND
C50, C51, C52, C53, C56, C57, C58, C59, C60, C61, C206, C207, C 20	39uF	CAP, Aluminum Polymer, 39 uF, 80 V, + D10x1.0mm	HHXA800ARA390MJA0G	Chem-Con	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP ALUM POLY HYB 39UF 80 United Chemi-Con	HHXA800ARA390MJA0G	565-4174-1-ND	
C76, C77, C78	3	1uF	CAP, CERM, 1 uF, 100 V, +/- 10%, X7S 0805	C2012X7S2A105K125AB	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP CER 1UF 100V X7S 0805 TDK Corporation	C2012X7S2A105K125AB	445-5205-1-ND
C79, C85, C137, C139, C140	5	0.01uF	CAP, CERM, 0.01 uF, 100 V, +/- 10%, X 0603	06031C103KA72A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 10000PF 100V X7R 0 AVX Corporation	06031C103KA72A	478-1205-1-ND
C80, C81, C95, C198	4	0.47uF	CAP, CERM, 0.47 uF, 16 V, +/- 10%, X7 0603	GRM188R71C474KA88D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 0.47UF 16V X7R 0603 Murata Electronics North America	GRM188R71C474KA88D	490-3295-1-ND
C87	1	10pF	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/I 0603	C0603C100J5GACTU	Kemet	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 10PF 50V C0G/NP0 KEMET	C0603C100J5GACTU	399-1049-1-ND
C89	1	0.1uF	CAP, CERM, 0.1 uF, 50 V, +/- 10%, X5F 0603	C1608X5R1H104K080AA	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 0.1UF 50V X5R 0603 TDK Corporation	C1608X5R1H104K080AA	445-7456-1-ND
C90	1	10uF	CAP, CERM, 10 uF, 16 V, +/- 20%, X5R 0603	EMK107BB106MA-T	Taiyo Yuden	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 10UF 16V X5R 0603 Taiyo Yuden	EMK107BB106MA-T	587-3298-1-ND
C96, C97, C99, C106, C108, C111, C112, C116, C119, C133, C135, 12	0.1uF	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	06033C104JA72A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 0.1UF 25V X7R 0603 AVX Corporation	06033C104JA72A	478-3713-1-ND	
C100, C104, C105, C218	4	0.015uF	CAP, CERM, 0.015 uF, 16 V, +/- 10%, X 0603	GRM188R71C153KA01D	Murata	Obsolete	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jun-2016	CAP CER 0.015UF 16V X7R 06 Murata Electronics North America	GRM188R71C153KA01D	490-11511-1-ND
C107, C109, C117, C210	4	10uF	CAP, CERM, 10 uF, 10 V, +/- 10%, X7R 0805	GRM21BR71A106KE51L	Murata	Obsolete	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2016	CAP CER 10UF 10V X7R 0805 Murata Electronics North America	GRM21BR71A106KE51L	490-3905-1-ND
C110	1	0.01uF	CAP, CERM, 0.01 uF, 50 V, +/- 10%, X7 0603	GCM188R71H1003KA37D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 10000PF 50V X7R 06 Murata Electronics North America	GCM188R71H1003KA37D	490-4778-1-ND
C113, C114, C121	3	10pF	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/I 0603	GRM1885C1H100JA01D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jun-2016	CAP CER 10PF 50V C0G/NP0 Murata Electronics North America	GRM1885C1H100JA01D	490-1403-1-ND
C115	1	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 10%, X5F 0603	GRM188R61C104KA01D	Murata	Obsolete	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jun-2016	CAP CER 0.1UF 16V X5R 0603 Murata Electronics North America	GRM188R61C104KA01D	490-9653-1-ND
C118	1	1uF	CAP, CERM, 1 uF, 6.3 V, +/- 10%, X5R, 0603	GRM188R60J105KA01D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 1UF 6.3V X5R 0603 Murata Electronics North America	GRM188R60J105KA01D	490-1550-1-ND
C122, C123, C125, C126	4	1uF	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 1206	12063C105KA72A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 1UF 25V X7R 1206 AVX Corporation	12063C105KA72A	478-1567-1-ND
C124	1	10uF	CAP, CERM, 10 uF, 35 V, +/- 10%, X6S 0805	GRM21BC8YA106KE11L	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	Complies with Reac	CAP CER 10UF 35V X6S 0805 Murata Electronics North America	GRM21BC8YA106KE11L	490-10504-1-ND
C127, C128	2	0.1uF	CAP, CERM, 0.1 uF, 16 V, +/- 5%, X7R, 0603	C0603C104J4RACTU	Kemet	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 0.1UF 16V X7R 0603 KEMET	C0603C104J4RACTU	399-1097-1-ND
C131, C132	2	0.22uF	CAP, CERM, 0.22 uF, 16 V, +/- 10%, X7 0603	C0603C224K4RACTU	Kemet	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 0.1UF 16V X7R 0603 KEMET	C0603C224K4RACTU	399-1097-1-ND
C134, C136, C138, C141, C145, C155, C156, C160, C161, C188 10	1uF	CAP, CERM, 1 uF, 25 V, +/- 10%, X7R, 0603	GRM188R71E105KA12D	Murata	Obsolete	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jun-2016	CAP CER 1UF 25V X7R 0603 Murata Electronics North America	GRM188R71E105KA12D	490-5307-1-ND	
C142, C144, C150, C154	4	1500pF	CAP, CERM, 1500 pF, 100 V, +/- 5%, X1 0603	06031C152JAT2A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 1500PF 100V X7R 06 AVX Corporation	06031C152JAT2A	478-3703-1-ND
C143, C151	2	3900pF	CAP, CERM, 3900 pF, 100 V, +/- 10%, X 0603	GRM188R72A392KA01D	Murata	Non-Stock	YES	YES	LEAD FREE	LEAD FREE	Complies with Reac	CAP CER 3900PF 100V X7R 06 Murata Electronics North America	GRM188R72A392KA01D	GRM188R72A392KA01D-ND
C147, C148	2	2700pF	CAP, CERM, 2700 pF, 50 V, +/- 5%, C0i 0603	GRM1885C1H272JA01D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 2700PF 50V C0G/NP0 Murata Electronics North America	GRM1885C1H272JA01D	490-3283-1-ND
C149	1	10pF	CAP, CERM, 10 pF, 50 V, +/- 5%, C0G/I 0603	06035A100JAT2A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 10PF 50V C0G/NP0 AVX Corporation	06035A100JAT2A	478-1163-1-ND
C152, C153	2	20pF	CAP, CERM, 20 pF, 50 V, +/- 5%, C0G/I 0603	GRM1885C1H200JA01D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	Complies with Reac	CAP CER 20PF 50V C0G/NP0 Murata Electronics North America	GRM1885C1H200JA01D	490-1410-1-ND
C157, C181, C184	3	1000pF	CAP, CERM, 1000 pF, 100 V, +/- 5%, X1 0603	06031C102JAT2A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 1000PF 100V X7R 06 AVX Corporation	06031C102JAT2A	478-3698-1-ND
C158, C159	2	100uF	CAP, CERM, 100 uF, 10 V, +/- 20%, X5I 1206_190	C3216X5R1A107M160AC	TDK	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2017	CAP CER 100UF 10V X5R 1206 TDK Corporation	C3216X5R1A107M160AC	445-6007-1-ND
C162, C164	2	12pF	CAP, CERM, 12 pF, 50 V, +/- 5%, C0G/I 0603	C0603C120J5GACTU	Kemet	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 12PF 50V C0G/NP0 KEMET	C0603C120J5GACTU	399-1050-1-ND
C163, C165, C166, C167, C168, C169, C174, C176, C177, C178, C111	0.1uF	CAP, CERM, 0.1 uF, 25 V, +/- 5%, X7R, 0603	06033C104JAT2A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 0.1UF 25V X7R 0603 AVX Corporation	06033C104JAT2A	478-3713-1-ND	
C170, C171	2	6.8pF	CAP, CERM, 6.8 pF, 50 V, +/- 4%, C0G/ 0603	06035A68C8AT2A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 6.8PF 50V C0G/NP0 AVX Corporation	06035A68C8AT2A	478-1161-1-ND
C172, C175	2	2.2uF	CAP, CERM, 2.2 uF, 35 V, +/- 10%, X5F 0603	GRM188R6YA225KA12D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 2.2UF 35V X5R 0603 Murata Electronics North America	GRM188R6YA225KA12D	490-7204-1-ND
C185, C186	2	27pF	CAP, CERM, 27 pF, 50 V, +/- 5%, C0G/I 0603	06035A270JAT2A	AVX	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 27PF 50V C0G/NP0 AVX Corporation	06035A270JAT2A	478-1168-1-ND
C221	1	0.22uF	CAP, CERM, 0.22 uF, 10 V, +/- 10%, X5 0603	GRM188R61A224KA01D	Murata	Active	YES	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE REACH NOT / Jan-2019	CAP CER 0.22UF 10V X5R 0603 Murata Electronics North America	GRM188R61A224KA01D	490-1537-

J9, J10, J11, J12	4	Standard Banana Jack, Uninsulated, 15. Banana Jack 108-0740-001	Emerson Network Pow	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	CONN BANANA JACK THRD	Cinch Connectivity Solutions Johns	108-0740-001	J147-ND	
J17	1	Header(Shrouded), 2.54mm, 5x2, Gold, Header, 2.54 AWHW-10G-0202-T	Assman WSW			YES	LEAD FREE	REACH NOT /					
J18	1	Header, 2.54 mm, 4x2, Gold, TH	Mill-Max	Active	YES	LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jan-2017	CONN HEADER VERT 8POS 2. Mill-Max Manufacturing Corp.	802-10-008-10-001000	ED1309-08-ND
J19	1	Header, 2.54mm, 8x2, Gold, TH	Sullins Connector Sol	Active	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE	REACH NOT /	Jan-2019	CONN HEADER VERT 16POS 2 Sullins Connector Solutions	PRPC008DAAN-RC	S2011EC-08-ND
J20	1	Connector, Receptacle, USB Micro B, R	FCI	Active	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE	REACH NOT /	Jan-2019	CONN RCPT USB2.0 MICRO B Amphenol ICC (FCI)	10118193-0001LF	609-4616-1-ND
J22	1	Header, 100mil, 7x1, Gold, TH	7x1 Header	Active	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE	REACH NOT /	Jan-2017	CONN HEADER VERT 7POS 2. Samtec Inc.	TSW-107-07-G-S	SAM1029-07-ND
L1, L2, L5, L6	4	4.7uH Inductor, 4.7uH, SMT	WE-HCF 28	Active	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE	REACH NOT /	Jan-2017	FIXED IND 4.7UH 36M 1.441 MC Wurth Electronics Inc.	74436410470	732-11531-ND
L3	1	47uH Inductor, Shielded Drum Core, Ferrite, 4	MSS1278			YES	LEAD FREE	REACH NOT /					
L4	1	600 ohm Ferrite Bead, 600 ohm @ 100MHz, 1 A, 0603	742792651	Active	YES	LEAD FREE	LEAD FREE	REACH NOT AFFE	REACH NOT /	Jan-2017	FERRITE BEAD 600 OHM 0603 Wurth Electronics Inc.	742792651	732-1593-1-ND
L7, L8	2	600 ohm Ferrite Bead, 600 ohm @ 100MHz, 2A, 0805	MPZ2012S601A			YES	LEAD FREE	REACH NOT /					
LBL1	1	Thermal Transfer Printable Labels, 1.25x	PCB Label 1			YES	LEAD FREE	REACH NOT /					
Q1, Q2, Q3, Q4, Q5, Q6, Q8, Q9, Q10, Q11, Q12, Q13, Q19, Q20, Q, 16	2	MOSFET N-CH 100V D2PAK	TO-263-3, D			YES	LEAD FREE	Complies with Reac	REACH NOT /		MOSFET N-CH 100V 65A D2PA Toshiba Semiconductor and Storage	TK65G10N1,RQ	TK65G10N1RQCT-ND
Q14, Q15	2	100V MOSFET, N-CH, 100 V, 21 A, PowerPAI	PowerPAK S	None	Active	YES	EXEMP LEAD FREE	REACH NOT /	REACH NOT /		MOSFET N-CH 100V 21A PPAK Vishay Siliconix	SI7454DDP-T1-GE3	SI7454DDP-T1-GE3CT-ND
Q16, Q17, Q18	3	60V MOSFET, N-CH, 60 V, 0.24 A, SOT-23	SOT-23	None	Active	YES	LEAD FREE	REACH NOT /	REACH NOT /		MOSFET N-CH 60V 240MA SOT Vishay Siliconix	2N7002E-T1-E3	2N7002E-T1-E3CT-ND
R1, R5, R8, R43	4	95.3k RES, 95.3 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 95.3K OHM 1% 1/10W Vishay Dale	CRCW060395K3FKEA	541-95.3KHCT-ND
R2, R19, R23, R172	4	634 RES, 634, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 634 OHM 1% 1/10W Vishay Dale	CRCW0603634RFKEA	541-634HCT-ND
R3, R9, R20, R171	4	9.09k RES, 9.09 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 9.09K OHM 1% 1/10W Vishay Dale	CRCW06039K09FKEA	541-9.09KHCT-ND
R4, R34, R116, R121, R122, R123, R131	7	100k RES, 100 k, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 100K OHM 1% 1/10W Vishay Dale	CRCW0603100KFKEA	541-100KHCT-ND
R6, R87	2	49.9k RES, 49.9 k, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jan-2017	RES SMD 49.9K OHM 1% 1/10W Panasonic Electronic Components	ERJ-3EK4F4992V	P49.9KHCT-ND
R7, R11, R81, R86, R89, R139, R144, R148, R151, R152, R154	11	10.0k RES, 10.0 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 10K OHM 1% 1/10W Vishay Dale	CRCW060310K0FKEA	541-10.0KHCT-ND
R10	1	1.00k RES, 1.00 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jan-2017	RES SMD 1K OHM 1% 1/10W Panasonic Electronic Components	ERJ-3EKF1001V	P1.00KHCT-ND
R12, R157	2	49.9k RES, 49.9 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 49.9K OHM 1% 1/10W Vishay Dale	CRCW060349K9FKEA	541-49.9KHCT-ND
R13, R158	2	40.2k RES, 40.2 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 40.2K OHM 1% 1/10W Vishay Dale	CRCW060340K2FKEA	541-40.2KHCT-ND
R14, R159	2	24.9 RES, 24.9, 1%, 0.125 W, 0805	0805	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 24.9 OHM 1% 1/8W Vishay Dale	CRCW0805249RFKEA	541-24.9CCT-ND
R15, R167	2	40.2k RES, 40.2 k, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jan-2017	RES SMD 40.2K OHM 1% 1/10W Panasonic Electronic Components	ERJ-3EK4F4022V	P40.2KHCT-ND
R16	1	0.001 RES, 0.001, 1%, 7 W, AEC-Q200	Grade 6.6x3x6.9mm	Active	YES	LEAD FREE	LEAD	Complies with Reac	REACH NOT /		RES 0.001 OHM 1% 7W 2726 Vishay Dale	WSLPT2726L000FEA	541-4375-1-ND
R17, R169	2	51.1k RES, 51.1 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 51.1K OHM 1% 1/10W Vishay Dale	CRCW060351K1FKEA	541-51.1KHCT-ND
R18, R170	2	54.9k RES, 54.9 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 54.9K OHM 1% 1/10W Vishay Dale	CRCW060354K9FKEA	541-54.9KHCT-ND
R21, R32, R173, R184	4	0.001 RES, 0.001, 1%, 3 W, 6.6x3x6.9mm	WSL2726L1000FEB	Active	YES	LEAD FREE	LEAD FREE	REACH NOT /	REACH NOT /		RES 0.001 OHM 1% 3W 2726 Vishay Dale	WSL2726L1000FEB	WSLQ-001CT-ND
R22, R24, R25, R29, R33, R35, R36, R40, R174, R175, R176, R182, 16	49.9k	RES, 49.9 k, 1%, 0.125 W, 0805	0805	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 49.9K OHM 1% 1/8W Vishay Dale	CRCW080549K9FKEA	541-49.9KCCCT-ND
R26, R27, R28, R30, R37, R38, R39, R41, R179, R180, R181, R183, 16	1.00	RES, 1.00, 1%, 0.125 W, 0805	0805	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 1 OHM 1% 1/8W 0805 Vishay Dale	CRCW08051R00FKEA	541-1.00CCT-ND
R31, R42, R56, R57, R58, R59, R177, R178, R186, R187	10	1.0 RES, 1.0, 5%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 1 OHM 5% 1/10W 0603 Vishay Dale	CRCW06031R00JNEA	541-1.0GCCT-ND
R44, R67, R72, R133, R135, R136, R147, R163, R164, R165, R168 11	2	0 RES, 0, 5%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jan-2017	RES SMD 0 OHM JUMPER 1/10 Panasonic Electronic Components	ERJ-3GEY0R00V	PO.0GCCT-ND
R45, R60	4	4.70k RES, 4.70 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jan-2017	RES SMD 4.7K OHM 1% 1/10W Yageo	RC0603FR-074K7L	311-4.70KHRCT-ND
R46	1	18.2k RES, 18.2 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 18.2K OHM 1% 1/10W Vishay Dale	CRCW060318K2FKEA	541-18.2KHCT-ND
R47	1	0.068 RES, 0.068, 1%, 1 W, 0612	0612	Active	YES	LEAD FREE	LEAD FREE	REACH NOT /	REACH NOT /		RES 0.068 OHM 1W 1206 Wide Susumu	PRL1632-R068-F-T1	PRL1632.068BFR-ND
R48	1	24.0k RES, 24.0 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /	Jul-2017	RES SMD 24K OHM 1% 1/10W Yageo	RC0603FR-0724KL	311-24.0KHRCT-ND
R49	1	7.32k RES, 7.32 k, 1%, 0.1 W, 0603	0603	Active	YES	LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jul-2017	RES SMD 7.32K OHM 1% 1/10W Yageo	RC0603FR-077K32L	311-7.32KHRCT-ND
R50	1	52.3k RES, 52.3 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jul-2017	RES SMD 52.3K OHM 1% 1/10W Yageo	RC0603FR-0752K3L	311-52.3KHRCT-ND
R51	1	10.0 RES, 10.0, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 10 OHM 1% 1/10W 0 Vishay Dale	CRCW060310R0FKEA	541-10.0HCT-ND
R52, R73	2	10.5 RES, 10.5, 1%, 0.1 W, 0603	0603	Active	YES	LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jul-2017	RES SMD 10.5 OHM 1% 1/10W Yageo	RC0603FR-0710R5L	311-10.5HRCT-ND
R53, R101	2	20.0k RES, 20.0 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 20K OHM 1% 1/10W Vishay Dale	CRCW060320K0FKEA	541-20.0KHCT-ND
R54, R55, R95, R166	4	2.0 RES, 2.0, 5%, 0.125 W, 0805	0805	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 2 OHM 5% 1/8W 0805 Vishay Dale	CRCW08052R00JNEA	541-2.0ACT-ND
R61, R62, R63, R64	4	10.0k RES, 10.0 k, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 10K OHM 1% 1/10W Vishay Dale	CRCW060310K0FKEA	541-10.0KHCT-ND
R65, R68, R69, R71, R120, R195	6	499 RES, 499, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 499 OHM 1% 1/10W Vishay Dale	CRCW0603499RFKEA	541-499HCT-ND
R70	1	1.15k RES, 1.15 k, 0.1%, 0.1 W, 0603	0603	Active	YES	LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jul-2017	RES SMD 1.15KOHM 0.1% 1/10 Yageo	RT0603BRD071K15L	YAGI559CT-ND
R74, R93	2	10.0k RES, 10.0 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jul-2017	RES SMD 10K OHM 1% 1/10W Yageo	RC0603FR-0710KL	311-10.0KHRCT-ND
R76	1	4.42k RES, 4.42 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 4.42K OHM 1% 1/10W Vishay Dale	CRCW06034K42FKEA	541-4.42KHCT-ND
R78	1	26.7k RES, 26.7 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 26.7K OHM 1% 1/10W Vishay Dale	CRCW060326K7FKEA	541-26.7KHCT-ND
R80, R138	2	1.00k RES, 1.00 k, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 1K OHM 1% 1/10W Vishay Dale	CRCW06031K00FKEA	541-1.0KHCT-ND
R82	1	1.00k RES, 1.00 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jul-2017	RES SMD 1K OHM 1% 1/10W 0 Yageo	RC0603FR-071KL	311-1.00KHRCT-ND
R84	1	1.00Meg RES, 1.00 M, 1%, 0.125 W, 0603	0603	Active	YES	LEAD FREE	LEAD	Complies with Reac	REACH NOT /		RES SMD 1M OHM 1% 1/8W 06 Vishay Beyschlag	MCT06030C1004FP500	MCT0603-1.00M-CFCT-ND
R90, R91	2	4.99k RES, 4.99 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 4.99K OHM 1% 1/10W Vishay Dale	CRCW06034K99FKEA	541-4.99KHCT-ND
R92, R94, R155, R156	4	10.0k RES, 10.0 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jan-2017	RES SMD 10K OHM 1% 1/10W Panasonic Electronic Components	ERJ-3EKF1002V	P10.0KHCT-ND
R96	1	0.51 RES, 0.51, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jan-2017	RES 0.51 OHM 1% 1/10W 0603 Panasonic Electronic Components	ERJ-3RQFR51V	P.51AJCT-ND
R99	1	10k RES, 10 k, 5%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 10K OHM 5% 1/10W Vishay Dale	CRCW060310K0JNEA	541-10KGCCT-ND
R111, R112, R114, R117, R124, R132	6	1.50k RES, 1.50 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jul-2017	RES SMD 1.5K OHM 1% 1/10W Yageo	RC0603FR-071K5L	311-1.50KHRCT-ND
R113, R115, R128, R130	4	49.9 RES, 49.9, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 49.9 OHM 1% 1/10W Vishay Dale	CRCW060349R9FKEA	541-49.9HCT-ND
R118, R119, R125, R127	4	100 RES, 100, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 100 OHM 1% 1/10W Vishay Dale	CRCW0603100RFKEA	541-100HCT-ND
R126, R129	2	3.30k RES, 3.30 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT AFFE	REACH NOT /	Jul-2017	RES SMD 3.3K OHM 1% 1/10W Yageo	RC0603FR-073K3L	311-3.30KHRCT-ND
R134	1	1.00 RES, 1.00, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 1 OHM 1% 1/10W 0603 Vishay Dale	CRCW06031R00FKEA	541-1.00HCT-ND
R137	1	1.00Meg RES, 1.00 M, 1%, 0.1 W, AEC-Q200	Grade 0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 1M OHM 1% 1/10W 0 Vishay Dale	CRCW06031M00FKEA	541-1.00MHCT-ND
R140, R150	2	1.00Meg RES, 1.00 M, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 1M OHM 1% 1/10W 0 Vishay Dale	CRCW06031M00FKEA	541-1.00MHCT-ND
R141	1	100 RES, 100, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 100 OHM 1% 1/10W Vishay Dale	CRCW0603100RFKEA	541-100HCT-ND
R142	1	0 RES, 0, 5%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 0 OHM JUMPER 1/10 Vishay Dale	CRCW0603000Z0EA	541-0.0GCCT-ND
R143	1	4.87k RES, 4.87 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 4.87K OHM 1% 1/10W Vishay Dale	CRCW06034K87FKEA	541-4.87KHCT-ND
R145	1	2.00k RES, 2.00 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 2K OHM 1% 1/10W 0 Vishay Dale	CRCW06032K00FKEA	541-2.00KHCT-ND
R146	1	51 RES, 51, 5%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 51 OHM 5% 1/10W 0 Vishay Dale	CRCW060351R0JNEA	541-51GCT-ND
R149	1	1.00k RES, 1.00 k, 1%, 0.1 W, 0603	0603	Active	YES	EXEMP LEAD FREE	LEAD	REACH NOT /	REACH NOT /		RES SMD 1K OHM 1% 1/10W 0 Vishay Dale	CRCW06031K00FKEA	541-1.00KHCT-ND
R153	1	8.06k RES, 8											

U13	1	50-µV Offset, 7-nV/√Hz Noise, Low-Pow	D0008A	INA828ID	Texas Instruments	INA828IDF Texas I	Active	YES	LEAD FREE	REACH NOT AFFE	Jan-2019	IC INST AMP 1 CIRCUIT 8SOIC Texas Instruments	INA828ID	296-47415-ND
U15	1	36-V Precision, Rail-to-Rail Output, Op	D0008A	TLV07IDR	Texas Instruments	Texas I	Active	YES	LEAD FREE	REACH NOT AFFE	Jan-2019	36-V PRECISION, RAIL-TO-RAIL Texas Instruments	TLV07IDR	296-47395-1-ND
U16	1	Low Noise, Very Low Drift, Precision Vol	D0008A	REF5050AID	Texas Instruments		Active	YES	YES	LEAD FREE	LEAD FREE	IC VREF SERIES 5V 8SOIC Texas Instruments	REF5050AID	296-22211-5-ND
U17	1	QUAD 16-BIT, 1LSB INL, BUFFERED, \	DMD0014A	DAC80004IDMDT	Texas Instruments	Texas I	Active	YES	LEAD FREE	REACH NOT AFFE	Jan-2019	IC DAC 16BIT V-OUT 4CH VSO Texas Instruments	DAC80004IDMDT	296-44534-1-ND
U19, U20	2	Low-Power, High Supply Range, 60-MHz	DGK0008A	THS4561IDGKR	Texas Instruments	THS4561II Texas I						Complies with Reac		
U21	1	24-Bit, 128kSPS, 4-Ch, Simultaneous Si	PBS0032A	ADS131A04IPBSR	Texas Instruments	ADS131A0 Texas I	Active	YES	LEAD FREE	REACH NOT AFFE	Jan-2019	IC AFE 24BIT 128KSPS 4CHN Texas Instruments	ADS131A04IPBSR	296-44202-1-ND
U22	1	Low Noise, Very Low Drift, Precision Vol	DGK0008A	REF5025IDGKR	Texas Instruments	REF5025II Texas I	Non-Stock	YES	YES	LEAD FREE	LEAD FREE	IC VREF SERIES 2.5V 8MSOP Texas Instruments	REF5025IDGKR	REF5025IDGKR-ND
U23	1	Tiva C Series Microcontroller, 1024 KB	f PDT0128A	TM4C1294NCPDTI3R	Texas Instruments		Active	YES	YES	LEAD FREE	LEAD FREE	IC MCU 32BIT 1MB FLASH 128 Texas Instruments	TM4C1294NCPDTI3R	296-46223-1-ND
U24	1	1-A Low-Dropout Regulator With Revers	DRV0006A	TPS73733DRVR	Texas Instruments	TPS73733 Texas I	Active	YES	YES	LEAD FREE	LEAD FREE	IC REG LINEAR 3.3V 1A 6SON Texas Instruments	TPS73733DRVR	296-40960-1-ND
U25	1	Single Output High PSRR LDO, 150 mA	CK0005A	TPS71718DCKR	Texas Instruments	Equivalent Texas I	Active	YES	YES	LEAD FREE	LEAD FREE	IC REG LINEAR 1.8V 150MA SC Texas Instruments	TPS71718DCKR	296-19646-1-ND
U26	1	USB ESD Solution with Power Clamp, 4	DRY0006A	TPD4S012DRYR	Texas Instruments		Active	YES	YES	LEAD FREE	LEAD FREE	TVS DIODE 5.5V 6SON Texas Instruments	TPD4S012DRYR	296-24244-1-ND
U27	1	Highly Integrated Full Featured Hi-Spee	5x5 QFN-32	USB3320C-EZK	Microchip		Active	YES	YES	LEAD FREE	LEAD FREE	IC TXRX USB 2.0 FLEXPWR 32 Microchip Technology	USB3320C-EZK	USB3320C-EZK-ND
U28	1	256K I2C? CMOS Serial EEPROM, TSS	TSSOP-8	24AA256-I/ST	Microchip		Active	YES	YES	LEAD FREE	LEAD FREE	IC EEPROM 256K I2C 8TSSOP Microchip Technology	24AA256-I/ST	24AA256-I/ST-ND
U29	1	Low Noise Negative Bias Generator, 8-p	MUA08A	LM7705MMNOPB	Texas Instruments		Active	YES	LEAD FREE	REACH NOT AFFE	Jan-2019	IC REG CHARGE PUMP -0.23V Texas Instruments	LM7705MMNOPB	LM7705MMNOPBCT-ND
Y1	1	Crystal, 16.384 MHz, 20 pF, SMD		SMD, 4-Lead 407F35E016M3840	CTS Electrocomponer		Active	YES	YES	LEAD FREE	LEAD FREE	CRYSTAL 16.3840MHZ 20PF SI CTS-Frequency Controls	407F35E016M3840	CTX682CT-ND
Y2	1	Crystal, 25 MHz, 18 pF, SMD		ABM3 ABM3-25.000MHZ-D2Y-T	Abrakon Corporation	ECS-250-1ECS In	Active	YES	EXEMP	LEAD FREE	LEAD	CRYSTAL 25.0000MHZ 20PF SI Abracon LLC	ABM3-25.000MHZ-D2Y-T	535-10645-1-ND
Y3	1	CRYSTAL, 32.768KHZ, 7PF, SMD		1.5x1.4x6.7n SSPT7F-7PF20-R	Seiko Instruments		Active	YES	EXEMP	LEAD FREE	LEAD	CRYSTAL 32.7680KHZ 7PF SM Seiko Instruments	SSPT7F-7PF20-R	728-1065-1-ND
Y4	1	Crystal, 24 MHz, 18 pF, SMD		ABM3 ABM3-24.000MHZ-D2Y-T	Abrakon Corporation		Active	YES	EXEMP	LEAD FREE	LEAD	CRYSTAL 24.0000MHZ 18PF SI Abracon LLC	ABM3-24.000MHZ-D2Y-T	535-10643-1-ND
R102	0	RES, 10.0 k, 1%, 0.1 W, 0603		0603 CRCW060310K0FKEA	Vishay-Dale		Active	YES	EXEMP	LEAD FREE	LEAD	RES SMD 10K OHM 1% 1/10W Vishay Dale	CRCW060310K0FKEA	541-10.0KHCT-ND
R160, R161	0	RES, 0, 5%, 0.1 W, 0603		0603 ERJ-3GEY0R00V	Panasonic		Active	YES	EXEMP	LEAD FREE	LEAD	RES SMD 0 OHM JUMPER 1/10 Panasonic Electronic Components	ERJ-3GEY0R00V	P0.0GCT-ND

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