## **Bill Of Materials For PK-6128c++**

Design Title:ΠK-6128ц++Author:ImproverRevision:12.01.2023

**Design Created** : 10 октября 2022 г. **Design Last Modified** : 16 января 2023 г.

**Total Parts In Design**: 305

## 70 Resistors

Quantity:	References	<u>Value</u>	Order Code
15	R1, R2, R61, R209, R210, R212, R214, R220, R222, R223, R225, R227-R230	10k	Digikey 311-75JTR-ND
2	R3, R216	100k	Digikey 311-75JTR-ND
6	R4, R7-R11	680	Digikey 311-75JTR-ND
2	R5, R6	330	Digikey 311-75JTR-ND
4	R29, R32, R89, R224	1.6k	Digikey 311-75JTR-ND
3	R30, R33, R35	820	Digikey 311-75JTR-ND
4	R31, R34, R36, R78	430	Digikey 311-75JTR-ND
10	R37, R39, R41, R200-R206	75	Digikey 311-75JTR-ND
3	R38, R40, R42	220	Digikey 311-75JTR-ND
1	R43	680	Digikey 3252W-102LF-ND
2	R79, R221	20k	Digikey 311-75JTR-ND
1	R80	5.6k	Digikey 311-75JTR-ND
1	R81	220k	Digikey 311-75JTR-ND
4	R82-R84, R101	2k	Digikey 311-75JTR-ND
6	R85-R87, R217-R219	3.3k	Digikey 311-75JTR-ND
2	R88, R226	5k	Digikey 311-75JTR-ND
1	R207	2.61k	Digikey 311-75JTR-ND
1	R208	1.5k	Digikey 311-75JTR-ND
1	R211	510	Digikey 311-75JTR-ND
1	R215	1k	Digikey 311-75JTR-ND

## 110 Capacitors

Quantity:	References	<u>Value</u>	Order Code
3	C1, C3, C86	22u	Digikey 495-2226-2-ND
9	C5, C108-C113, C121, C122	220u	Digikey 495-2226-2-ND
81	C6-C81, C87, C123-C126	0.068u	Digikey 478-1129-6-ND
1	C84	0.15u	Digikey 478-1129-6-ND
1	C85	4700p	Digikey 478-1129-6-ND
5	C100-C102, C104, C118	0.1u	Digikey 478-1129-6-ND
2	C103, C114	47u	Digikey 495-2226-2-ND
3	C105-C107	10n	Digikey 478-1129-6-ND
1	C115	47p	Digikey 478-1129-6-ND
1	C116	100p	Digikey 478-1129-6-ND
1	C117	150p	Digikey 478-1129-6-ND
1	C119	0.47u	Digikey 478-1129-6-ND
1	C120	1u	Digikey 495-2226-2-ND

Quantity:         References         Value         Order Code           2         U1, U2         UM61512         UM61512A           2         U3, U4         74HC245         6           6         U5-U8, U13, U14         74HC157         74HC08           3         U10, U30, U37         74HC32         CXA2075M         CXA2075M           1         U11         CXA2075M         CXA2075M         CXA2075M           2         U12, U21         74HC24         74HC21         74HC21         74HC21         74HC27         74HC21         74HC27         74HC27         74HC04         74HC27         74HC04         74HC04         74HC04         74HC04         74HC04         74HC04         74HC04         74HC02         74HC03         74HC03         74HC02         74HC03         74HC03         74HC03         74HC00         74HC23         74HC00         74HC23         74HC04         74HC23         74HC138
2 U3, U4 74HC245 6 U5-U8, U13, U14 74HC157 2 U9, U17 74HC08 3 U10, U30, U37 74HC32 1 U11 CXA2075M CXA2075M 2 U12, U21 74HC240 1 U15 74HC21 1 U16 74HC27 2 U18, U25 74HC74 1 U19 74HC04 1 U20 29EE512 1 U22 AY-3-8910 AY-3-8910 2 U23, U33 74HC02 1 U24 74HC139 1 U26 TDA7052A TDA7052A 3 U27, U32, U36 74HC00 2 U28, U29 74HC273 1 U31 74LC01 1 U34 DS12885S 1 U35 74HC138  4 Transistors    Quantity: References
6 U5-U8, U13, U14 74HC157 2 U9, U17 74HC08 3 U10, U30, U37 74HC32 1 U11 CXA2075M CXA2075M 2 U12, U21 74HC240 1 U15 74HC21 1 U16 74HC21 2 U18, U25 74HC74 1 U19 74HC04 1 U20 29EE512 1 U22 AY-3-8910 AY-3-8910 2 U23, U33 74HC02 1 U24 74HC139 1 U26 TDA7052A TDA7052A 3 U27, U32, U36 74HC00 2 U28, U29 74HC273 1 U31 74LVC1G86 1 U34 DS12885S 1 U35 74HC138  4 Transistors    Quantity: References   Value   Order Code
2     U9, U17     74HC08       3     U10, U30, U37     74HC32       1     U11     CXA2075M     CXA2075M       2     U12, U21     74HC240       1     U15     74HC21       1     U16     74HC27       2     U18, U25     74HC74       1     U19     74HC04       1     U20     29EE512       1     U22     AY-3-8910     AY-3-8910       2     U23, U33     74HC02       1     U24     74HC139       1     U26     TDA7052A     TDA7052A       3     U27, U32, U36     74HC00       2     U28, U29     74HC273       1     U31     74HC138       4     Transistors       Quantity:     References     Value     Order Code       1     Q1     12MHz       1     Q4     BC847B       1     Q10     7.0936MHz       44 Diodes       Quantity:     References     Value     Order Code       4     D1, D7, D53, D62     74HC74       3     D2, D13, D71     74HC04
3
1       U11       CXA2075M       CXA2075M         2       U12, U21       74HC240         1       U15       74HC21         1       U16       74HC27         2       U18, U25       74HC74         1       U19       74HC04         1       U20       29EE512         1       U22       AY-3-8910       AY-3-8910         2       U23, U33       74HC02         1       U26       TDA7052A       TDA7052A         3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138              4 Transistors              Quantity:       References       Value       Order Code         44 Diodes         Quantity:       References       Value       Order Code         44 D1, D7, D53, D62       74HC74       74HC04
2     U12, U21     74HC240       1     U15     74HC21       1     U16     74HC27       2     U18, U25     74HC74       1     U19     74HC04       1     U20     29EE512       1     U22     AY-3-8910     AY-3-8910       2     U23, U33     74HC02       1     U24     74HC139       1     U26     TDA7052A     TDA7052A       3     U27, U32, U36     74HC00       2     U28, U29     74HC273       1     U31     74LVC1686       1     U34     DS12885S       1     U35     74HC138       4 Transistors       Quantity:     References     Value     Order Code       1     Q1     12MHz       1     Q4     BC847B       1     Q10     7.0936MHz       44 Diodes       Quantity:     References     Value     Order Code       4     D1, D7, D53, D62     74HC74       3     D2, D13, D71     74HC04
1       U15       74HC21         1       U16       74HC27         2       U18, U25       74HC74         1       U19       74HC04         1       U20       29EE512         1       U22       AY-3-8910       AY-3-8910         2       U23, U33       74HC02         1       U24       74HC139       TDA7052A         1       U26       TDA7052A       TDA7052A         3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138        4 Transistors   Yalue  Order Code   Order Code   Order Code   At Diodes   Value  Order Code  Order Code   Order Code   Order Code   Order Code  At D1, D7, D53, D62  T4HC74  T4HC74  T4HC74  T4HC04  Order Code  Order Code  Order Code  Order Code  T4HC74  T4HC74  T4HC04  Order Code  Order Co
1       U16       74HC27         2       U18, U25       74HC74         1       U19       74HC04         1       U20       29EE512         1       U22       AY-3-8910       AY-3-8910         2       U23, U33       74HC02         1       U24       74HC139         1       U26       TDA7052A       TDA7052A         3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138              4 Transistors       Value       Order Code         4 Transistors       Value       Order Code         4 Toda       BC847B       T.0936MHz         44 Diodes       Value       Order Code         44 Diodes       Value       Order Code         4 D1, D7, D53, D62       74HC74       74HC04
2     U18, U25     74HC74       1     U19     74HC04       1     U20     29EE512       1     U22     AY-3-8910     AY-3-8910       2     U23, U33     74HC02       1     U24     74HC139       1     U26     TDA7052A     TDA7052A       3     U27, U32, U36     74HC00       2     U28, U29     74HC273       1     U31     74LVC1G86       1     U34     DS12885S       1     U35     74HC138          4 Transistors       Quantity:     References     Value     Order Code       1     Q4     BC847B       1     Q10     7.0936MHz      At Diodes        Quantity:     References     Value     Order Code       4     D1, D7, D53, D62     74HC74       3     D2, D13, D71     74HC04
1       U19       74HC04         1       U20       29EE512         1       U22       AY-3-8910       AY-3-8910         2       U23, U33       74HC02         1       U24       74HC139         1       U26       TDA7052A       TDA7052A         3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138             4 Transistors         Quantity:       References       Value       Order Code         1       Q1       12MHz         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz        44 Diodes       Quantity:          References       Value       Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
1       U20       29EE512         1       U22       AY-3-8910       AY-3-8910         2       U23, U33       74HC02         1       U24       74HC139         1       U26       TDA7052A       TDA7052A         3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138              4 Transistors         Quantity:       References       Value       Order Code         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz     AY-3-8910  AY-3
1       U22       AY-3-8910       AY-3-8910         2       U23, U33       74HC02         1       U24       74HC139         1       U26       TDA7052A       TDA7052A         3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138             4 Transistors       Value       Order Code         1       Q1       12MHz         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz     4 Diodes           Quantity:       References       Value       Order Code         4 Di, D7, D53, D62       74HC74       74HC04
2       U23, U33       74HC02         1       U24       74HC139         1       U26       TDA7052A       TDA7052A         3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138            4 Transistors         Quantity:       References       Value       Order Code         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz             44 Diodes         Quantity:       References       Value       Order Code         4       D1, D7, D53, D62       74HC74       74HC04
1       U24       74HC139         1       U26       TDA7052A       TDA7052A         3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138            4 Transistors         Quantity:       References       Value       Order Code         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz             44 Diodes         Quantity:       References       Value       Order Code         4       D1, D7, D53, D62       74HC74       74HC04         3       D2, D13, D71       74HC04
1       U26       TDA7052A       TDA7052A         3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138             4 Transistors         Quantity:       References       Value       Order Code         1       Q1       12MHz         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz             44 Diodes         Quantity:       References       Value       Order Code         4       D1, D7, D53, D62       74HC74       74HC04
3       U27, U32, U36       74HC00         2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138             4 Transistors         Quantity:       References       Value       Order Code         1       Q1       12MHz         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz             44 Diodes         Quantity:       References       Value       Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
2       U28, U29       74HC273         1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138             4 Transistors         Quantity:       References       Value       Order Code         1       Q1       12MHz         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz            44 Diodes         Quantity:       References       Value       Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
1       U31       74LVC1G86         1       U34       DS12885S         1       U35       74HC138             4 Transistors         Quantity:       References       Value       Order Code         1       Q1       12MHz         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz             44 Diodes         Quantity:       References       Value       Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
1       U34       DS12885S         1       U35       74HC138         4 Transistors         Quantity: References       Value Order Code         1       Q1       12MHz         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz         44 Diodes         Quantity: References       Value Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
1     U35     74HC138       4 Transistors     Value     Order Code       Quantity:     References     Value     Order Code       1     Q1     12MHz     12MHz       1     Q3     BSS138     12MHz       1     Q4     BC847B     12MHz       1     Q10     7.0936MHz       44 Diodes     Value     Order Code       4     D1, D7, D53, D62     74HC74       3     D2, D13, D71     74HC04
Quantity:         References         Value         Order Code           1         Q1         12MHz           1         Q3         BSS138           1         Q4         BC847B           1         Q10         7.0936MHz           44 Diodes           Quantity:         References         Value         Order Code           4         D1, D7, D53, D62         74HC74           3         D2, D13, D71         74HC04
Quantity:         References         Value         Order Code           1         Q1         12MHz           1         Q3         BSS138           1         Q4         BC847B           1         Q10         7.0936MHz           44 Diodes           Quantity:         References         Value         Order Code           4         D1, D7, D53, D62         74HC74           3         D2, D13, D71         74HC04
1       Q1       12MHz         1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz         44 Diodes         Quantity: References       Value       Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
1       Q3       BSS138         1       Q4       BC847B         1       Q10       7.0936MHz             44 Diodes       Value       Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
1       Q4       BC847B         1       Q10       7.0936MHz             44 Diodes         Quantity:       References       Value       Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
1       Q10       7.0936MHz         44 Diodes         Quantity: References       Value       Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
44 Diodes         Quantity:       References       Value       Order Code         4       D1, D7, D53, D62       74HC74         3       D2, D13, D71       74HC04
Quantity:         References         Value         Order Code           4         D1, D7, D53, D62         74HC74           3         D2, D13, D71         74HC04
4 D1, D7, D53, D62 74HC74 3 D2, D13, D71 74HC04
4 D1, D7, D53, D62 74HC74 3 D2, D13, D71 74HC04
4 D3 D9 D58 D82 74HC32
T 1002
3 D4, D17, D18 74HC193
1 D5 74HC245
1 D6 KP1821BM85
1 D8 74LVC1G86
1 D10 V455DC2
1 D10 K155PE3
2 D11, D50 74HC00
2 D11, D50 74HC00
2 D11, D50 74HC00 1 D12 74HC374
2 D11, D50 74HC00 1 D12 74HC374 2 D15, D52 74HC393
2 D11, D50 74HC00 1 D12 74HC374 2 D15, D52 74HC393 1 D16 74HC08

1	D51	74HC02
2	D54, D55	74LS89
1	D63	74HC153
2	D65, D66	74HC244
1	D68	74HC240
2	D78, D80	8255A
1	D79	8253A
1	D81	LM311

## 40 Miscellaneous

Quantity:	References	<u>Value</u>	Order Code
1	BAT1	3.2V	
1	DBT1	0x01	
1	DBT2	0x00	
1	H1	SPEAKER	
1	JP1	JUMPER2	
1	JP2	JUMPER	
1	L1	100mkH	
4	RP1-RP4	RESPACK-8	
3	RV1-RV3	1K	Digikey 3252W-102LF-ND
1	RV4	1M	Digikey 3252W-102LF-ND
2	V1, V3	1N4001	
1	X1	DIN8PIN	
2	X2, X3	CONN-D9-RS232	
1	X4	4.43	
1	X5	DIN5PIN	
1	X6	CRYSTAL	
1	X7	SNP34-30	
1	X8	AWLP-10/3	Digikey HDM14H-ND
2	X9, X10	AWLP-34/3	Digikey HDM40H-ND
4	XM1, XM1A, XP1, XP1A	AWLP-40/3	Digikey HDM40H-ND
4	XM2, XM3, XM3A, XP2	AWLP-10/3	Digikey HDM10H-ND
2	XP3, XP3A	CONN-DIL6	
1	XS1	SNP34-90	
1	XT1	66226-024	Digikey 66226-024-ND
1	XT2	DIN7PIN	

16 января 2023 г. 15:17:23