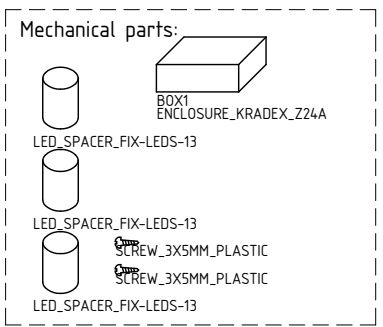
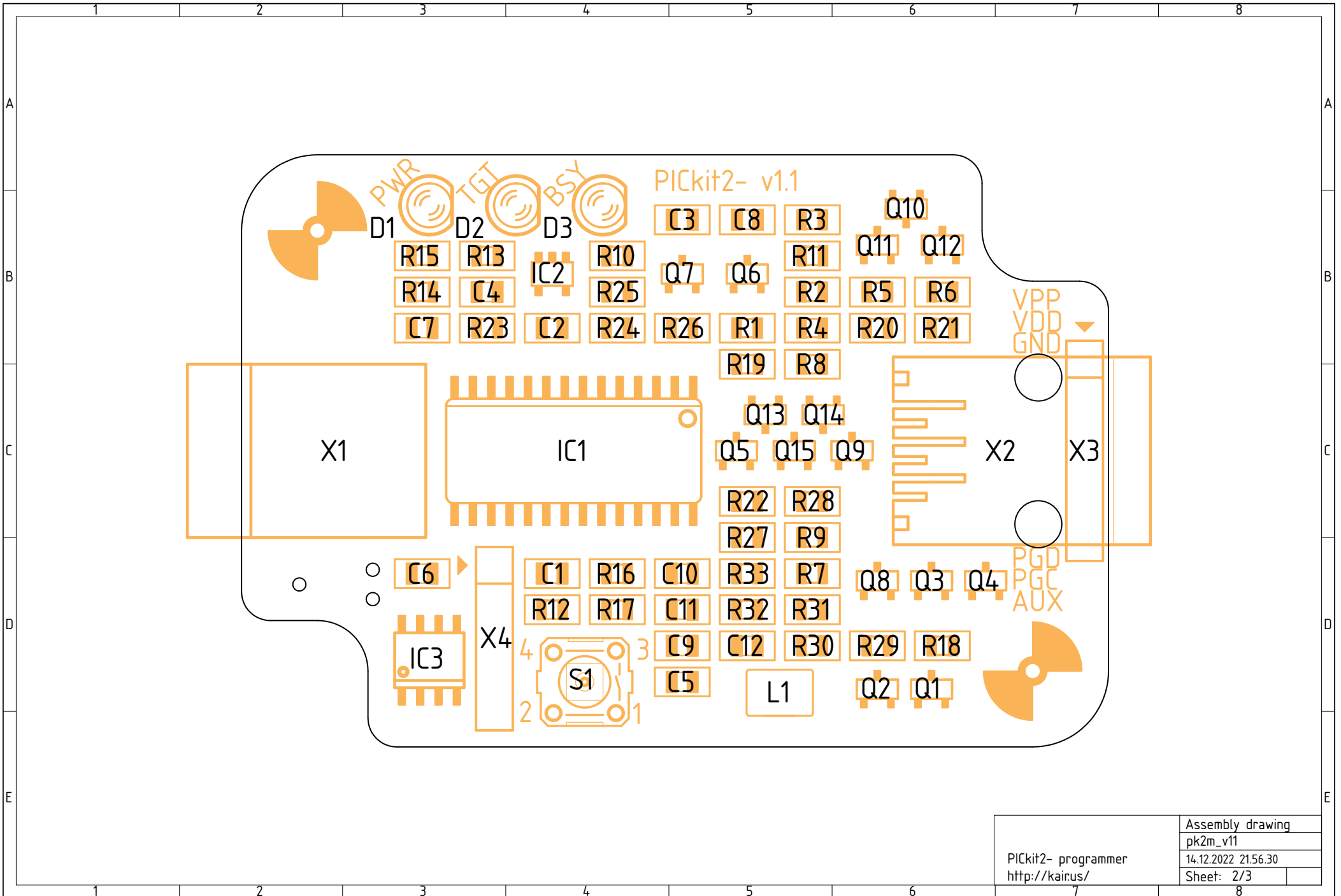


NPN alternatives: MMBT2222, MMBT3904, BC847, 2SC2712
 PNP alternatives: MMBT2907, MMBT3906, BC857, 2SA1162
 OPAMP alternatives: TS1851ILT, OPA171

For firmware see http://kairus/projects/pk2m_programmer/
 For software see <http://kairus/projects/pickitminus/>



PICkit2- programmer http://kairus/	Circuit diagram
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PICkit2- programmer http://kairus/	Assembly drawing
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Description	Qty	Parts	MfG	MPN	Alternative MfG	Alternative MPN	TME part number
R THICKFILM 22R 0805	6	R1-R6	Yageo	RC0805FR-0722RL	Royalohm	0805S8F220JT5E	SMD0805-22R-1%
R THICKFILM 100R 0805	1	R7	Yageo	RC0805FR-07100RL	Royalohm	0805S8F1000T5E	SMD0805-100R-1%
R THICKFILM 1k 0805	8	R8-R15	Yageo	RC0805FR-071KL	Royalohm	0805S8F1001T5E	SMD0805-1k-1%
R THICKFILM 4k7 0805	6	R16-R21	Yageo	RC0805FR-074K7L	Royalohm	0805S8F4701T5E	SMD0805-4k7-1%
R THICKFILM 10k 0805	12	R22-R33	Yageo	RC0805FR-0710KL	Royalohm	0805S8F1002T5E	SMD0805-10k-1%
C CERAM X7R 25V 100n 0805	6	C1-C6	Kyocera AVX	08053C104KAT2A	Yageo	CC0805KRX7R9BB104	CC0805KPX7R9104
C CERAM X5R 25V 470n 0805	1	C7	Samsung	CL21B474KAFNNNG	Taiyo Yuden	TMK212BJ474KD-T	CL21B474KBFNNNE
C CERAM X5R 25V 10µ 0805	5	C8-C12	Samsung	CL21A106KAYNNNG	Taiyo Yuden	TMK212BBJ106KG-T	CL21A106KAYNNNG
L FERRITE 680µ 50mA 30R 1812	1	L1	Bourns	PM1812-681J-RC	Ferrocore	DL1812-680	NL12KTC681
NPN MMBT4401 SOT23	6	Q1-Q6	Diodes	MMBT4401-7-F	Nexperia	MMBT2222A,215	MMBT4401-DIO
PNP MMBT4403 SOT23	9	Q7-Q15	Diodes	MMBT4403-7-F	Nexperia	PMBT2907A,215	MMBT4403-DIO
IC PIC18F25K50-I/SO MICROCHIP SO28	1	IC1	Microchip	PIC18F25K50-I/SO	Microchip	PIC18F25K50-E/SO	PIC18F25K50-I/SO
IC MCP6001T-I/OT OPAMP 1MHz SOT23-5	1	IC2	Microchip	MCP6001T-I/OT	STMicoelectronics	TS1851ILT	MCP6001T-I/OT
IC AT24CM01-SSHM-B 1Mb I2C EEPROM S08	1	IC3	Microchip	AT24CM01-SSHM-B	Onsemi	CAT24M01WI-GT3	M24M01-RMN6TP
LED GREEN 3mm LOW CURRENT	1	D1	Vishay	TLLG4400	Broadcom	HLMP-1790	TLLG4400
LED YELLOW 3mm LOW CURRENT	1	D2	Vishay	TLLY4400	Broadcom	HLMP-1719	TLLY4400
LED RED 3mm LOW CURRENT	1	D3	Vishay	TLLR4400	Broadcom	HLMP-1700	TLLR4400
SW TACTILE 6x6mm MOM NO TH PCB	1	S1	TE Connectivity	FSM4JH	TE Connectivity	1825910-6	TACTM-619P-F
CONN USB-B RIGHT ANGLE PCB	1	X1	Pulse	E8144-B02022-L	Amphenol	UE27-BC54-13H	USBB-G
CONN 6P6C MODULAR JACK (RJ12)	1	X2	TE Connectivity	5555165-1	Ninigi	RJ12G-PCB	5555165-1
CONN 6S 2.54 MM RIGHT ANGLE SOCKET	1	X3	Samtec	SSQ-106-02-T-S-RA	Sullins	PPPC061LGBN-RC	ZL263-6SG
CONN 5P PIN HEADER 2.54mm	1	X4	Harwin	M20-9990546	Sullins	PRPC005SAAN-RC	ZL201-05G
SPACER FOR 3MM LED L=13mm	3		Würth Elektronik	705820130	Dremec	8GE04V80371	FIX-LEDS-13
ENCLOSURE Z24A ABS KRADEX	1		Kradex	Z24A ABS		Z24AP ABS	Z24A-ABS
SCREW 3x5mm FOR PLASTIC	2		Bossard	3304810			B3X5/BN20173

TME shared cart: <http://www.tme.eu/en/parking/be73424c3a238080ea78b8cc368b1366b1e992d4.html>
Digi-Key shared cart: <https://www.digikey.com/short/1wbph3w8>
Mouser shared cart: <https://www.mouser.com/ProjectManager/ProjectDetail.aspx?AccessID=ca7c6a8010>

DK and Mouser shared carts don't include enclosure parts and LED spacers.
The push button in TME cart has long plunger, suitable for use with Kradex enclosure.
The button in DK and Mouser carts has short plunger.
Use either connector X2 ('ICD' style RJ12) or connector X3 ('PICkit' style header)

PICkit2- programmer http://kairus/	Bill of materials
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