

Bill of Materials PCB MCU NCM107 v1.1

For Nixie Clock IN-18 (Tubes Board NCT318 v1.1)

	Creation Date: 27.04.2017			
#	Designator	Quantity	Comment	Footprint
1	B1	1	Buzzer HCS0903G	SMD passive BUZZER 8,5x8,5
2	BT1	1	Batttery Holder CR1220	Batttery Holder CR1220
3	C2, C3, C26, C27, 'C12, C16, C18, C20, C21, C22, C23, C29	12	100nF 50V	0805
4	C4	1	220uF 16V	SMD 6,3x7,7mm (or TH Capacitor)
5	C5, C9, C11, C14	4	10uF 16V	0805
6	C6	1	10uF 250V	10x10,5mm UUX2E100MNL1GS (or TH Capacitor)
7	C7, C28	2	100nF 250V	1206
8	C10	1	10nF 50V	0805
9	C13	1	1000uF 16V	10x10,5mm (or TH Capacitor)
10	C15, C17, C19	3	10uF 16V	Size-A (SMD3216)
11	C24, C25	2	22pF 50V	0805
12	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D21, D22, D23, D24, D25, D26, D27, D28, D29	20	BAV103	SOD80/MLL34
13	D12	4	ZM4764A	DO-213AB
14	D13	1	LED	LED RED 1206
15	D14	1	ES2J	DO-214AA (SMB)
16	D15, D19	2	DS_SS26	DO-214AA (SMB)
17	D16	1	SMAJ18CA	DO-213AC (SMA)
18	D17	1	SMBJ220CA	DO-214AA (SMB)
19	D20	4	DL4148	SOD80/MLL34
20	DOWN, MODE, UP	3	Button_SWT_3	SWT_3_6mm
21	ExDOWN, ExMODE, ExUp, ExPow	4	PH2.0-2p	PH2-2p
22	ExUSB	1	PH2.0-4p	PH2-4p
23	F1	1	0 ohm	1206 (or Fuse 3A 36V)
24	J1	4	PWR_DJK_02A	KLD_0202_NOM
25	J2	4	MUSB	UX60-MB
26	L1	1	100uH 2,7A	RCR1616 16x16mm
27	L2	1	15-22uH 2A	CDRH104R 10x10mm
28	MAIN	1	PBD-38	PBD-38-3D
29	Q1	1	STD18N55M5 (or FDD18N20LZ)	DPAK
30	R1, R2, R3, R4, R5, R8, R29, R31, R33, R34, R35	11	1k	0805
31	R6, R7, R19, R20	4	300k 0805	0805
32	R9	1	1.5 MOhm 0805	0805
33	R10	1	1 Ohm	1206
34	R11	1	150k 0805	0805
35	R12, R14, R15, R16, R18, R26, R27, R30	8	10k 0805	0805
36	R13	4	10K Opt 0805	R_0805
37	R17	1	10k	3296W (adjust resistor)
38	R21	1	0.05 Ohm	R2512
39	R22	1	95.3k 0805	0805
40	R23	1	18.2k 0805	0805
41	R24, R25	2	27 Ohm 0805	0805
42	T1, T3, T5	3	PMBTA92	SOT23-3N
43	T2, T4, T6, T7, T8	5	PMBTA42	SOT23-3N

44	TLI	1	PH2.0-3p	PH2-3p
45	U4	4	HV5812WG	SOIC-28W
46	U4	1	MAX1771CSA	SOIC-8
47	U5	1	RT8258GE (Replace see schem)	SOT23-6
48	U6	1	DS3231S	SOIC-16W
49	U7	1	FT230XS	SSOP-16
50	U8	1	ATmega328P-PU	DIP-28
51	U9	1	ULN2003D	SOIC-16
52	Z1	1	16Mhz	Quartz SMD 6x3,5mm
53	not market on PCB	1	SIP DIP-28	Install to U8
54	not market on PCB	1	Battery Li-ion CR1220	Install to BT1
55	PCB MCU NCM107 v1.1 (Manufacture)	1		

Bill of Materials PCB Tubes Board NCT318 v1.1				
#	Designator	Quantity	Comment	Footprint
1	Hex pillar M3x6mm IN-OUT	4		
2	Hex pillar M3x20mm IN-IN	4		
3	Hex pillar M3x28mm IN-IN	4		
4	Screw M3x6mm L=6mm	8		
5	MAIN1	1	PLD-18	PLD-18
6	EDIT1	4	PBD-12R	PBD-12R
7	not marked on PCB	84	Sokets pins	Socket for IN-18 Install to NX1-NX6
8	not marked on PCB	2	PLCC-44	Socket for HV5122JP Install to U2, U3
8	D1, D2, D3, D4, D5, D6, D7, D8	8	LED RGB 3528	LED RGB 3528
9	U2, U3	2	HV5122JP	PLCC-44
9	U1	1	CD4504BM	SOIC-16
10	C1, C2, C3, C4	4	100nF 50V	0805
10	R11-R18, R27-34	16	100 Ohm	0805
11	R19-R26	8	150 Ohm	0805
11	R5-R10	6	10k	2512
13	PCB TUBES NCT318 v1.1	1		

1	NX1, NX2, NX3, NX4, NX5, NX6	6	IN-18	NIXIE Tubes
2.1	DS2, DS3	2	NE-2H/C2A	Variant 1 -Without Column
2.2	DS1, DS2, DS3, DS4	4	NE-2H/C2A	Variant 2 - With Column
		2	Column 10x65mm	- DS2, DS4 solder legs at full length
		2	Column Holder	- DS1, DS3 solder below DS2, DS4
		8	Screw	
		8	Nut M2,5	
3	Wooden Case	1		
4	Assebled NIXIE Clock (Ivan)	1		
5	PG2.1	1		
6	PS24B2	3		Buuton SPST-NO; 6A/250BAC
7	USB + PCB + Hex pillar 12mm - 2pcs	1		
8	Top cover	1		
9	Back Panel	1		
10	Logo	1		
11	Screw countersunk head M3x6mm	8		
12	screw-nail	4		
13	screw-nail	4		
14	PH2.0-4 plug with wire	1		
15	PN2.0-2 plug with wire	4		

16	Пайка MCU	1		
17	Пайка Tube	1		