

## SHIELD NCS3568-6 V1.2 (BOM revision B5) 25.03.2021

	#	Designator	Qty	Value	Package Reference	Comment
1 - Resistors	1	R63	1	18.2k	0805	Resistor
	2	R62	1	95.3k	0805	Resistor
	3	R61	1	0.05 Ohm	2512	Resistor
	4	R58	1	10k	3296W/ 3266	Variable Resistor
	5	R56, R35, R41, R42, R67	5	4.7k	0805	Resistor
	6	R51	1	1 Ohm	1206	Resistor
	7	R50	1	1.5 MOhm	0805	Resistor
	8	R11, R12, R37, R38, R48, R54	6	1k	0805	Resistor
	9	R65	1	150 Ohm	0805	Resistor
	10	R7, R8, R9, R10, R36	5	150k	0805	Resistor
	11	R1, R2, R3, R4, R5, R6	6	510 Ohm	2512	Resistor
2 - Capacitors	12	C14	1	10nF 50V	0805	Ceramic capacitor
	13	C6, C12, C13, C19, C20	5	10uF 16V	0805	Ceramic capacitor
	14	C1, C2, C3, C4, C5, C8, C9, C10, C17, C21, C22, C23, C24, C25, C26, C27, C28, C29	18	100nF 50V	0805	Ceramic capacitor
	15	C7	1	10uF 10V/ or 10uF 16V	Size-A (SMD3216) Size-B (SMD3528)	Tantal capacitor
	16	C18	1	100nF 250V	1206	Ceramic capacitor
	17	C11	1	1000uF 16V	TH & SMD 10x10mm	
	18	C16	1	220uF 16V	TH & SMD 6.3x7.7mm	Aluminum capacitor NACE221M16V6.3X8TR13F
3 - Diodes	19	C15	1	10uF 250V	TH & SMD 10x10mm	Aluminum capacitor NACV100M250V10X10.8TR13F
	20	D15	1	SS16/ SS26	SMA/ SMB	Schottky diode
	21	D14	1	SMBJ220CA	SMB	TVS
	22	D12	1	LED RED	1206	Power indicator
4 - IC's & Transistors	23	D9	1	ES2J/ or ES2F	SMA/ SMB	Fast diode
	24	U1, U2	2	HV5122PJ-G	PLCC-44	HV Driver
	25	U3	1	CD4504BM/ or CD4504BE	SOIC-16/ DIP-16	Level converter
	26	U5	1	DS3231SN/ or DS3231MZ	SOIC-16W/ SOIC-8	RTC
	27	U6	1	LM3478MM/ or LM3488MM/ or LM3478MAX	VSSOP-8/ VSSOP-8/ SOIC-8	DC-DC HV.
	28	U7	1	RT8258GE	SOT23-6	DC-DC 5V.
	29	<i>for connect TEM1 via Wire PH2.0-3p</i>	1	DS18B20	TO-92	Temperature sensor
	30	IR1	1	TSOP4836	DIP-3	IR Receiver
	31	T1	1	FQD18N20/ or FQD12N20L	DKPAK	Transistor MOSFET N-Chanal
	32	T2	1	BC817/ or PMBTA42	SOT-23	Transistor N-P-N
5 - Coils	33	L2	1	22uH 2A/ or 15uH	CDRH104R SMD 10.8x10.8x4mm	Shielded inductance
	34	L1	1	100uH 2.7A	16x16mm	Shielded inductance
	35	GPS1, TEM1	2	Jack 3.5mm	ST-11M-030-00-0	For external GPS and DS18B20
	36	DOWN, MODE, UP	3	SWT-3/13 Button	h=13, L=9	Control buttons
	37	BT1	1	Battery Holder CR1220	SMD CR1220	Backup for RTC
	38	<i>insert into the battery holder BT1</i>	1	Battery CR1220		Battery 3V Lithium
	39	B1	1	HCS0903G/ or STD0833C	SMD 8.5x8.5mm	Buzzer HCS0903G Replace STD0833C
	40	SPI1	1	PLD-4	Pich 2.54mm	Connect to Arduino
	41	DG3	1	PLS-4	Pich 2.54mm	Connect to Arduino
	42	AN1, PWR1	2	PLS-6	Pich 2.54mm	Connect to Arduino
	43	DG2	1	PLS-8	Pich 2.54mm	Connect to Arduino

6 -Misc	44	DG1	1	PLS-10	Pich 2.54mm	Connect to Arduino
	45	ExDOWN, ExMODE, ExUP, LS1	4	PH2.0-2p	Pich 2.0mm	For external buttons
	46	GPS1	1	PH2.0-4p	Pich 2.0mm	For external GPS
	47	TEM1	1	PH2.0-3p Right	Pich 2.0mm	For external TEMP DS18B20
	48	<del>Edit</del>	4	<del>PBD-8R</del>		<del>Options for external PCB-NCS8568</del>
	49	<del>for IC U1, U2</del>	2	<del>PLCC-44 Ssocket</del>		<del>Socket for IC U1, U2</del>
	50	<del>for IC U3</del>	2	<del>DIP-16 Ssocket</del>	<del>Pich 2.54mm</del>	<del>Socket for IC U3</del>
	51	<i>for connect DS18B20 to TEM1</i>	1	Wire PH2.0-3p	L = 10-30cm	Wire for DS18B20
	52	<i>sockets for NX1, NX2, NX3, NX4, NX5, NX6</i>	66(102)	Socket pin H3161-01		Options: Sockets for Z568
7- RGB LED	53	D1, D2, D3, D4, D5, D6, D7, D8	8	SK6812-Mini	3535	Addressabled RGB LED
8 - Nixie Tubes	54	NX1, NX2, NX3, NX4, NX5, NX6	6	Z568/ or R/Z568		Option: Nixie Tube
9 - Neon lamps	55	DS1, DS2, DS3, DS4	4	NE-2H(C2A) with Long Pins!		Neon Lamp
10 - Mechanical	56	Screw M3x5mm	8			
	57	Hex Spacer M3 12mm	4		IN-IN	
	58	Hex Spacer M4 20mm	8		IN-OUT	
	59	Nut Cap M4 L=6 mm (Bronze)	8			
	60	<i>for DS18B20 and Neon Lamp</i>	1	Heat Shrink 1/0.5mm	56cm	For insulation DS18B20 and Neon Lamp
	61	PCB NCS33568 V1.1	1			Size 53.26x200mm
Extra	62	Arduino Mega (Flashed)	1			
	63	EU Power supply 15V 1,66A	1			
	64	Glass Columns d14x100mm	2			
	65	Glass Columns d14x120mm	2			
	66	Column Holder D14	2			
	67	Rubber Seal D14	4			
	68	Screw M2.5x8mm	4			
	69	Nut M2.5	4			
	70	Photo of socket	1			
	71	Scheme	1			
	72	BOM	1			
	73	User manual	1			