Component	Value / Type	Description	Designator	Quantity
CAPACITOR	100nF	100nF Keramic cap	C1	1
	47nF	47nF ceramic	C10, C11, C18, C19, C26, C27	6
	220nF	220nF ceramic	C12, C13, C20, C21	4
	1uF	Elco 1uF	C14	1
	101	WCAP-ATG8 Aluminum Electrolytic Capacitor, Radial, THT, D5 x H11mm, 1uF, 10V	01.	
	1uF		C15, C23, C31	3
	47uF	Elco 47uF	C16, C24	2
	10nF	10nF ceramic	C2, C3	2
	4,7uF	Elco 4,7uF WCAP-ATG8	C22	1
	45	Aluminum Electrolytic Capacitor, Radial, THT, D5 x H11mm, 1μF, 10V	C2E C22	
	1uF	69nE coramic	C25, C33	2
	68nF 22uF	68nF ceramic Elco 22uF	C28, C29 C30, C32	2
	ZZUF	WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0201, NP0 Class I, 1uF,	C30, C32	2
	1uF	25VDC	C34	1
		WCAP-CSGP Multilayer Ceramic Chip Capacitor, General Purpose, size 0201, NP0 Class I, 100nF, 25VDC		
	100nF	23700	C35	1
	100nF	Elco 100nF	C4	1
		WCAP-ATG8 Aluminum Electrolytic Capacitor, Radial, THT, D5 x H11mm, 1uF, 10V		
	1μF		C5	1
	330nF	330nF ceramic	C6, C7	2
	100uF	Elco 100uF	C8	1
		WCAP-ATG8 Aluminum Electrolytic Capacitor, Radial, THT, D5 x H11mm, 47μF, 10V		
DIODE	47uF	Disability Changland 75W 200m A Confess Manual COD 5225	C9, C17	2
DIODE		Diode Standard 75V 200mA Surface Mount SOD- 523F	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14,	
	1N4148		D15, D16	16
OPAMP	TL071CP	J-FET Amplifier 1 Circuit 8-SO Dual, 30-V, 3-	IC1	1
	TL072CP	MHz, high slew rate (13- V/Âμs), In to V+, JFET-input op amp	IC2, IC3, IC4, IC5	4
VOLTAGE REGULATOR	111217	Standard Regulator Pos 1.2V to 37V 0.25A 3- Sig(2.75b) TO 220 Tub a	ICE	1
CONNECTOR	LM317 PJ-313	Pin(3+Tab) TO- 220 Tube 3,5cm jack	J1	1 1
CONNECTOR	3,5mm jack	Joseph Jack)JI	

1		T	<u> </u>	1
		HEADER, 2		
		CONTACTS, 1 ROW, THROUGH HOLE, 2.54 MM;		
		Connector Systems:Board to-Board; Pitch Spacing:2.54m m; No. of		
		Rows:1Rows; No. of Contacts:2Con tacts; Contact Termination Type:Through		
		Hole; Product Range:HTSW Series; Gender:Heade r RoHS Compliant:		
		Yes		
	2 pin block			
	connector		J2, J22	2
			J3,J4, J5, J6, J7, J8,	
			J9, J10, J11, J12,	
		2 nin haadar lumnar	J13, J14, J15, J16,	
		2 pin header Jumper	J17, J18, J19, J20,	
	2 pin		J21	
	header			19
LED			LED05, LED06,	
			LED07, LED08,	
			LED09, LED15,	
			LED16, LED17,	
			LED18, LED19,	
			LED25, LED26,	
			LED27, LED28,	
			LED29, LED35,	
			LED36, LED37,	
			LED38, LED39,	
			LED45, LED46,	
			LED47, LED48,	
			LED49, LED55,	
			LED56, LED57,	
			LED58, LED59,	
			LED65, LED66,	
			LED67, LED68,	
			LED69, LED75,	
	LED 2x5x7	Green 569nm LED Indication - Discrete 1.9V	LED76, LED77,	40
	LLD ZXJX7	Green 503mm ELD marcation - Discrete 1.5V	LED02, LED03,	40
			LED02, LED03, LED04, LED12,	
			LED13, LED14,	
			LED22, LED23,	
			LED24, LED32,	
			LED33, LED34,	
			LED42, LED43,	
			LED44, LED52,	
			LED53, LED54,	
			LED62, LED63,	
	LED 2x5x7	Yellow 589nm LED Indication - Discrete 1.9V	LED64, LED72,	24
	LED ZX3X/	TEHOW JOSHIII LED HIGHARIOH - DISCIELE 1.3V	IFD73 IFD74	24
			LED00, LED01,	
			LED10, LED11,	
			LED20, LED21,	
			LED30, LED31,	
1			LED40, LED41,	
			LED50, LED51,	
	150 2 5 5	Ded C22am LED Indication City LA 2V	LED60, LED61,	
	LED 2x5x7	Red 623nm LED Indication - Discrete 1.9V	LED70. LED71.	16

RESISTOR			R1, R2, R3, R10,	
KESISTON			R11, R14, R15,	
			R17, R22, R23,	
		4,7k Resistor 0805	R26, R27, R33,	
		,,	R39, R40, R44,	
			R45, R56,	
	4,7k		R57. R61. R62	21
	75k	75k Resistor	R12	1
		0805		
	390	390 Resistor	R13	1
	4501	0805	D4.C	
	150k	150k Resistor 0805	R16	1
	43	430hm	R20	1
	45	Resistor 0805	N20	
	16,2k	16,2k Resistor	R21	1
	1-0/2	0805		_
	56k	75k Resistor	R24	1
		0805		
	301	301 Resistor	R25	1
		0805		
	120k	120k Resistor	R28	1
	8,2k	0805	R29	1
	8,2K	8,2k Resistor 0805	RZ9	1
	16,2k	16.2k Resistor	R36	1
	1-0/2	0805		_
	82	82Ohm	R37	1
		Resistor 0805		
	33k	33k Resistor	R38, R53	2
		0805		
	100	1000hm	R4	1
	201	Resistor 0805	D44	
	30k	30k Resistor 0805	R41	1
	150	150 Resistor	R42	1
	150	0805	11.42	
	56k	56k Resistor	R43	1
		0805		
	39k	4,7k Resistor	R5	1
		0805		
	36k	4,7k Resistor	R50, R66	2
	160	0805	R54	1
	160	160Ohm Resistor 0805	K54	1
	68k	68k Resistor	R55	1
	OOK	0805	11.55	
	47k	47k Resistor	R58	1
		0805		
	240	240 resistor	R59	1
		0805		
	22k	22k Resistor	R6, R30, R47	3
	0.11	0805	nec .	
	91k	91k Resistor 0805	R60	1
	36k	36k Resistor 0805	R63	1
	252	252 Resistor	R69	1
I		0805		

	1,2k 910	1,2k Resistor 0805	R7, R18, R31,	
			R35, R49, R52,	8
			R65, R68	
		910 Resistor 0805	R8, R19, R32, R34,	
			R48, R51, R64,	8
			R67	
	20k	20k Resistor	R9	1
		0805		
DISPLAY	LM3915	LM3915 Dot/Bar Display Driver	U1, U2, U3, U4,	8
DRIVER	LIVISSIS	Livis 313 Doty Bai Display Driver	U5, U6, U7, U8	0
TRIMMER		10 kOhms 0.5W, 1/2W PC		
		Pins Through Hole Trimmer Potentiomete r Cermet 1 Turn Top		
		Adjustment		
	10k		VR1	1
		500 kOhms 0.5W, 1/2W PC		
		Pins Through Hole Trimmer Potentiomete r Cermet 1 Turn Top		
		Adjustment		
	500k		VR2	1