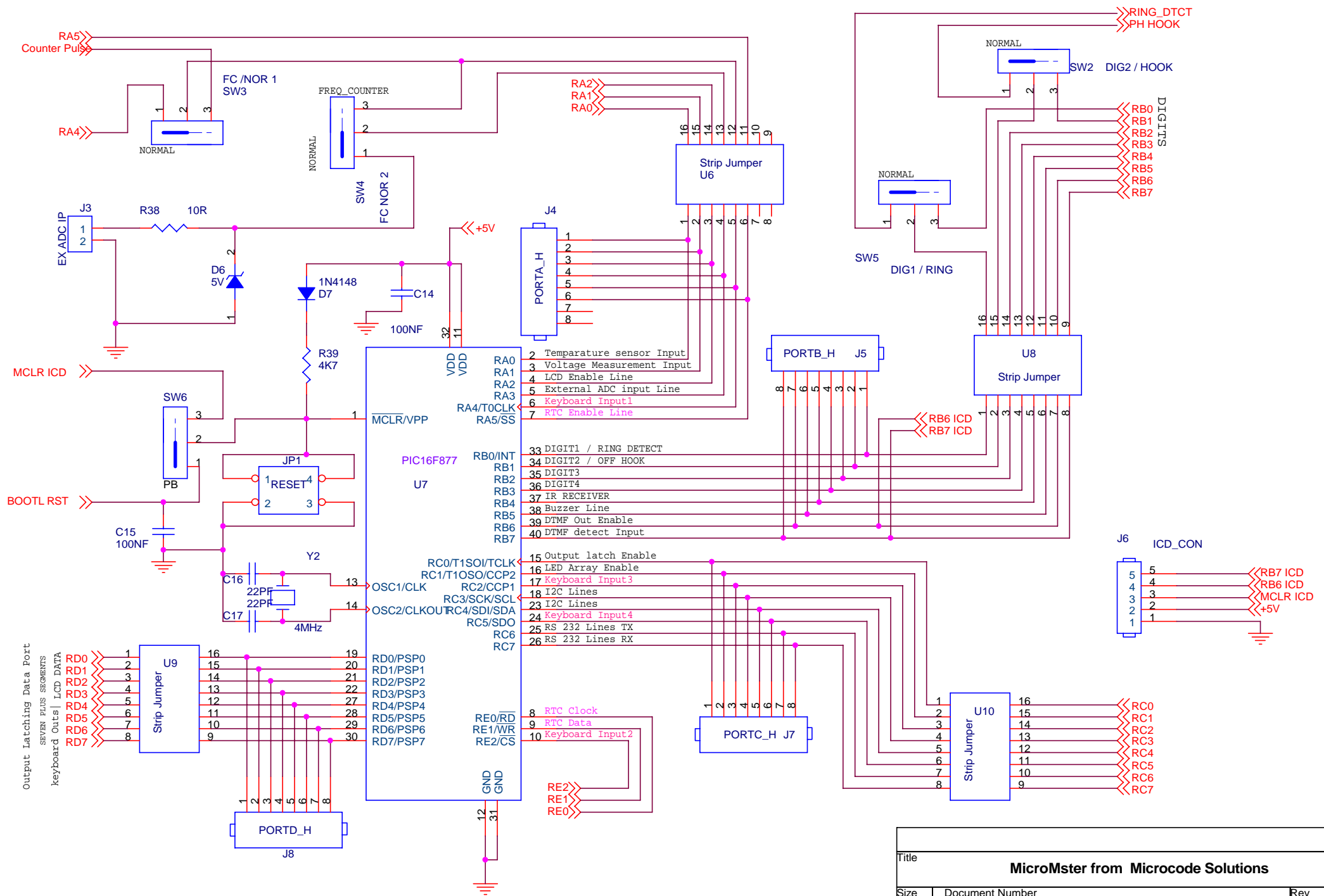


# Schematic for MicroMaster

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Title		
<b>Micromster from Microcode Solutions</b>		
Size	Document Number Main Microcontroller Board	Rev
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Output Latching Data Port  
SEVEN PLUS SEGMENTS  
keyboard Outs | LCD DATA

DIGIT1  
DIGIT2 / HOOK  
DIGIT3  
DIGIT4

J6 ICD\_CON

RB7 ICD  
RB6 ICD  
MCLR ICD  
+5V

RB0  
RB1  
RB2  
RB3  
RB4  
RB5  
RB6  
RB7

SW5 DIG1 / RING

U8 Strip Jumper

PORTC\_H J7

U10 Strip Jumper

PORTB\_H J5

Strip Jumper U6

PORTA\_H J4

PIC16F877 U7

RA0 RA1 RA2 RA3 RA4/TOCLK RA5/SS

RB0/INT RB1 RB2 RB3 RB4 RB5 RB6 RB7

RC0/T1SOI/TCLK RC1/T1OSO/CCP2 RC2/CCP1 RC3/SCK/SCL RC4/SDI/SDA RC5/SDO RC6 RC7

RD0/PSP0 RD1/PSP1 RD2/PSP2 RD3/PSP3 RD4/PSP4 RD5/PSP5 RD6/PSP6 RD7/PSP7

RE0/RD RE1/WR RE2/CS

VDD VDD

MCLR/VPP

GND GND

Strip Jumper U9

PORTD\_H J8

FREQ\_COUNTER SW4 FC NOR 2

FC /NOR 1 SW3

EX ADC IP J3

SW6 PB

JP1 RESET

C15 100NF

C16 22PF C17 22PF Y2 4MHZ

C14 100NF

D7 1N4148

R38 10R

D6 5V

RA5 Counter Pulse

RA4

RA2 RA1 RA0

RB6 ICD RB7 ICD

MCLR ICD

BOOTL RST

RE2 RE1 RE0

RC0 RC1 RC2 RC3 RC4 RC5 RC6 RC7

RB0 RB1 RB2 RB3 RB4 RB5 RB6 RB7

RING\_DTCT PH HOOK

SW2 DIG2 / HOOK

DIGIT1 DIGIT2 / HOOK DIGIT3 DIGIT4

J6 ICD\_CON

RB7 ICD RB6 ICD MCLR ICD +5V

SW5 DIG1 / RING

U8 Strip Jumper

PORTC\_H J7

U10 Strip Jumper

PORTB\_H J5

Strip Jumper U6

PORTA\_H J4

PIC16F877 U7

RA0 RA1 RA2 RA3 RA4/TOCLK RA5/SS

RB0/INT RB1 RB2 RB3 RB4 RB5 RB6 RB7

RC0/T1SOI/TCLK RC1/T1OSO/CCP2 RC2/CCP1 RC3/SCK/SCL RC4/SDI/SDA RC5/SDO RC6 RC7

RD0/PSP0 RD1/PSP1 RD2/PSP2 RD3/PSP3 RD4/PSP4 RD5/PSP5 RD6/PSP6 RD7/PSP7

RE0/RD RE1/WR RE2/CS

VDD VDD

MCLR/VPP

GND GND

Strip Jumper U9

PORTD\_H J8

FREQ\_COUNTER SW4 FC NOR 2

FC /NOR 1 SW3

EX ADC IP J3

SW6 PB

JP1 RESET

C15 100NF

C16 22PF C17 22PF Y2 4MHZ

C14 100NF

D7 1N4148

R38 10R

D6 5V

RA5 Counter Pulse

RA4

RA2 RA1 RA0

RB6 ICD RB7 ICD

MCLR ICD

BOOTL RST

RE2 RE1 RE0

RC0 RC1 RC2 RC3 RC4 RC5 RC6 RC7

RB0 RB1 RB2 RB3 RB4 RB5 RB6 RB7

RING\_DTCT PH HOOK

SW2 DIG2 / HOOK

DIGIT1 DIGIT2 / HOOK DIGIT3 DIGIT4

J6 ICD\_CON

RB7 ICD RB6 ICD MCLR ICD +5V

SW5 DIG1 / RING

U8 Strip Jumper

PORTC\_H J7

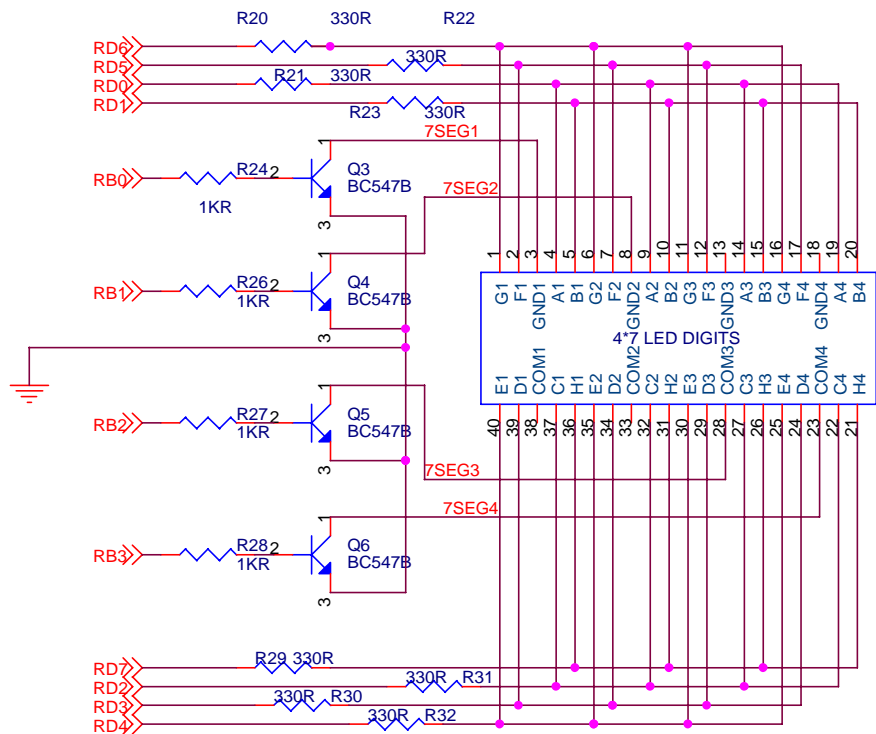
U10 Strip Jumper

PORTB\_H J5

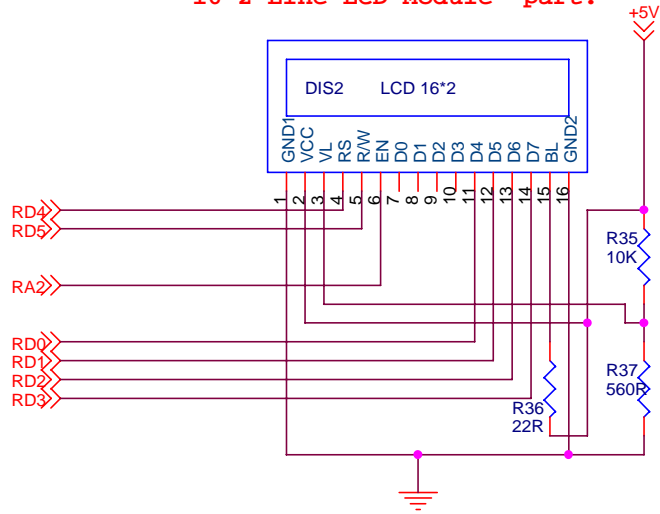
Strip Jumper U6

PORTA\_H J4

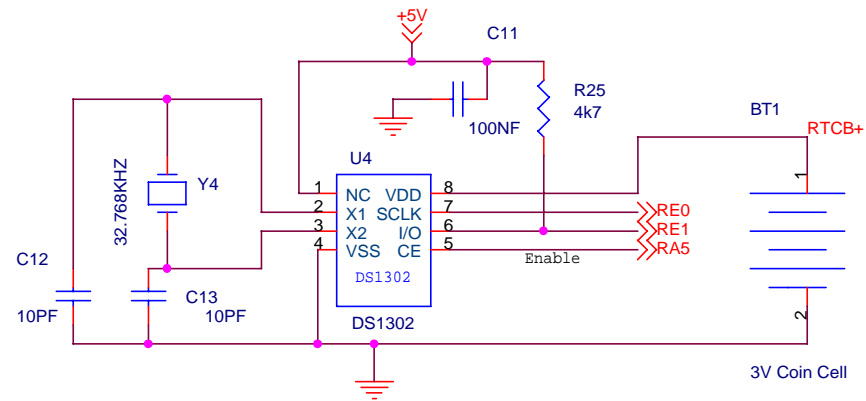
**Seven Segment LED Display Section**



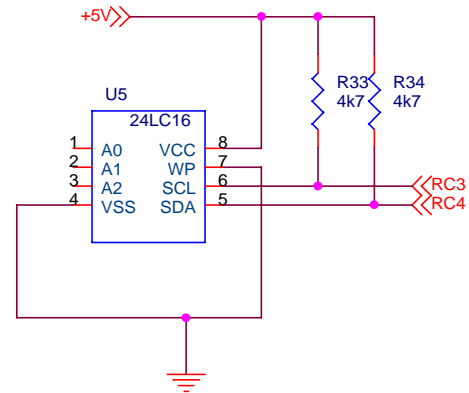
**16\*2 Line LCD Module part.**



**Maxim RTC with Battery Back Up**

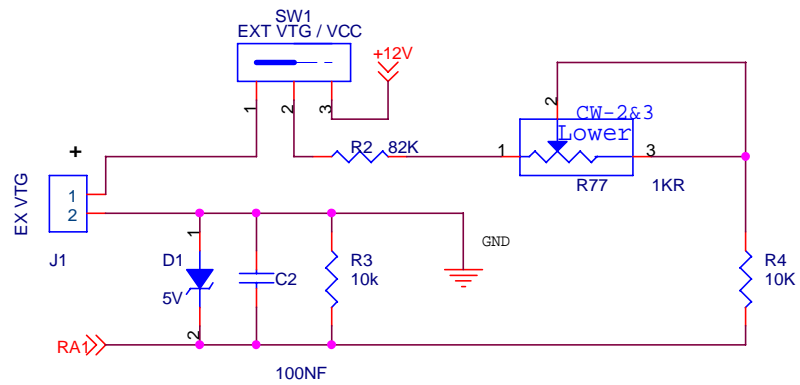


**EEPROM memmory for Shedule Storage**

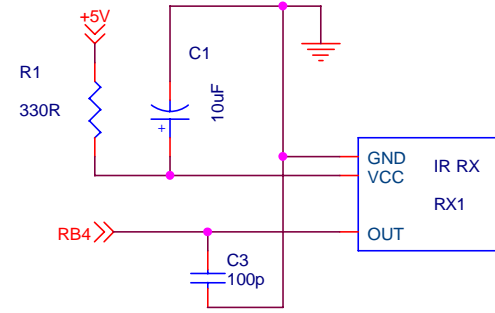


Title		
<b>MicroMaster from Microcode Solutions</b>		
Size	Document Number	Rev
	Displays,RTC,EEPROM and O/P Latch	
Date:	Thursday, October 19, 2006	Sheet 3 of 9

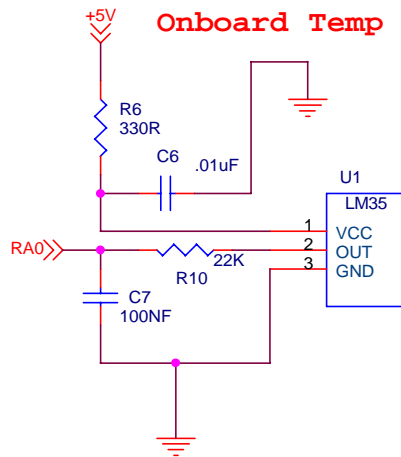
### Onboard Voltage Sensing Part



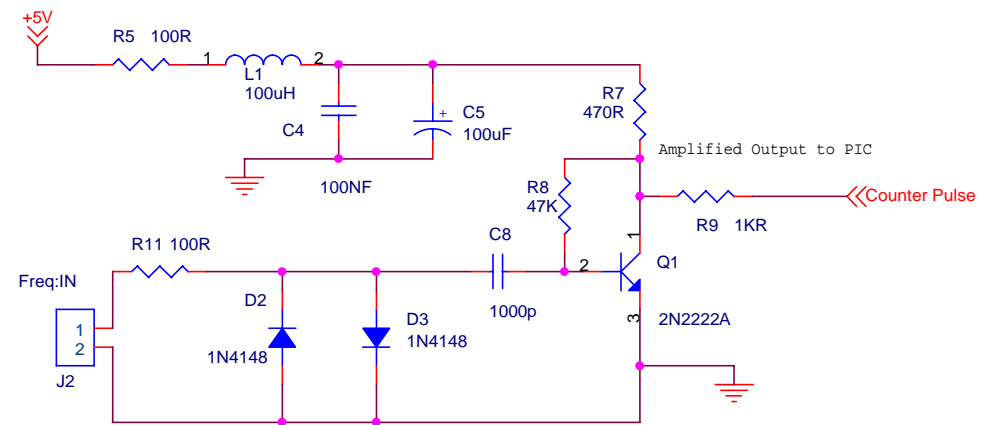
### Infrared Receiver Section



### Onboard Temp Sensor.

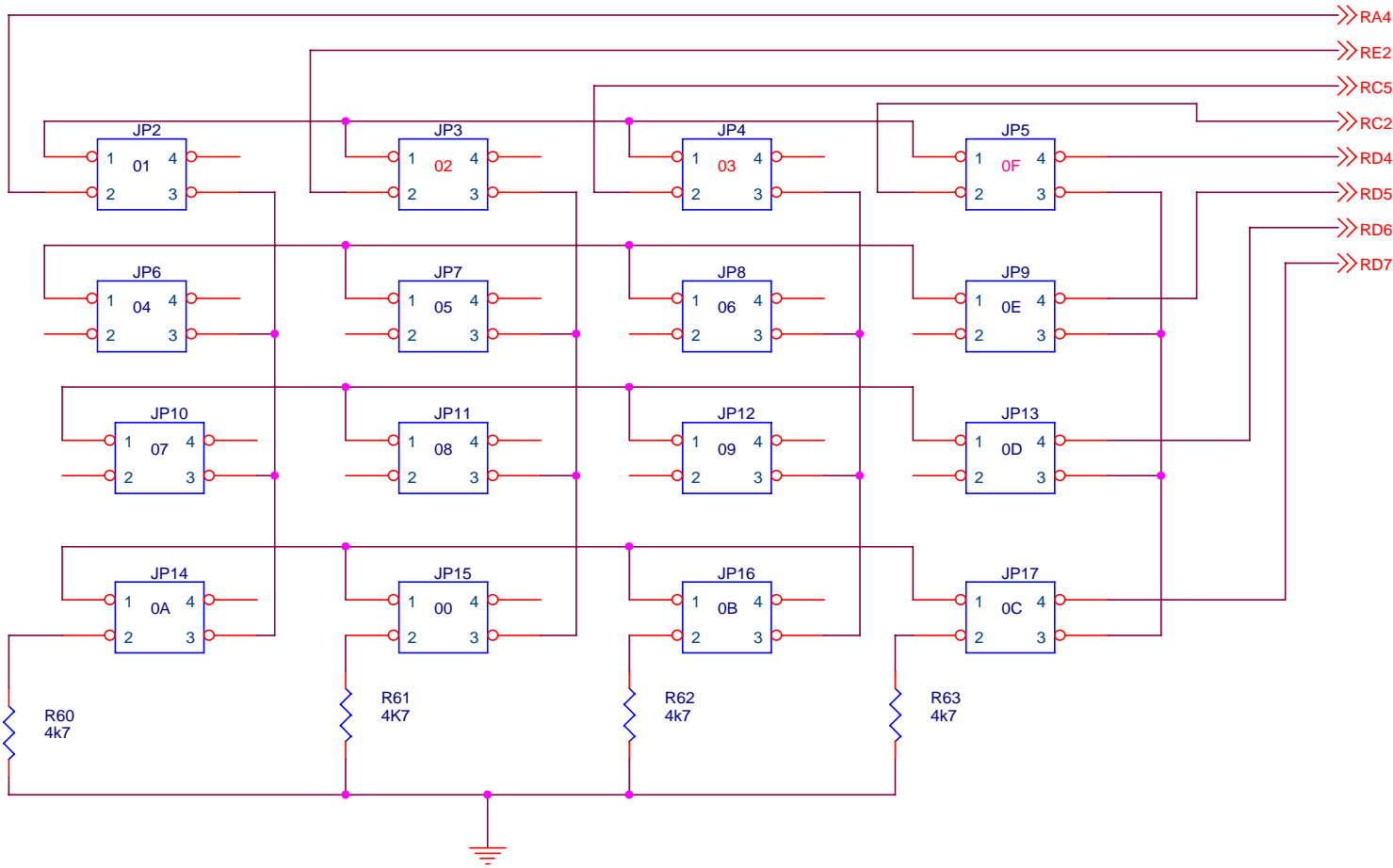


### Frequency Counter Preamplifier Section

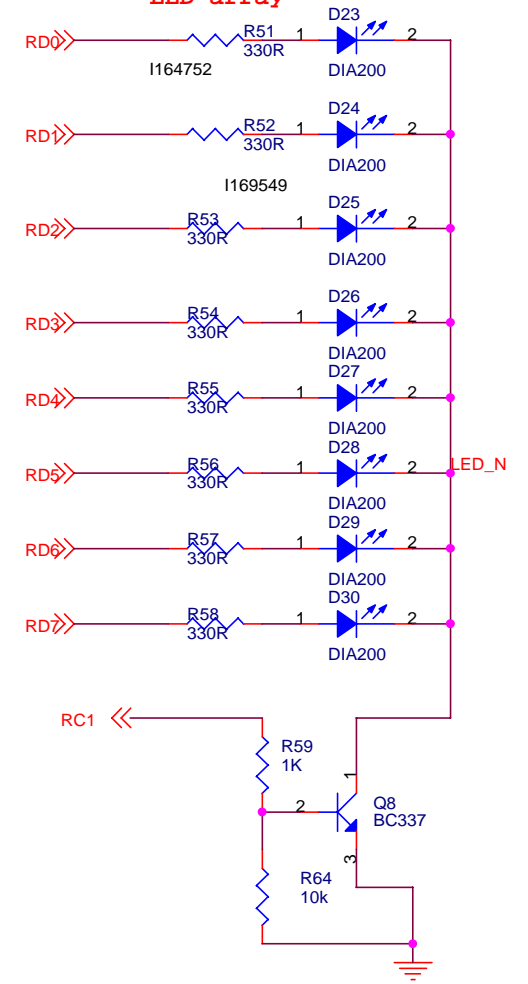


Title		
<b>MicroMaster from Microcode Solutions</b>		
Size	Document Number Sensors and Signal amplifier	Rev
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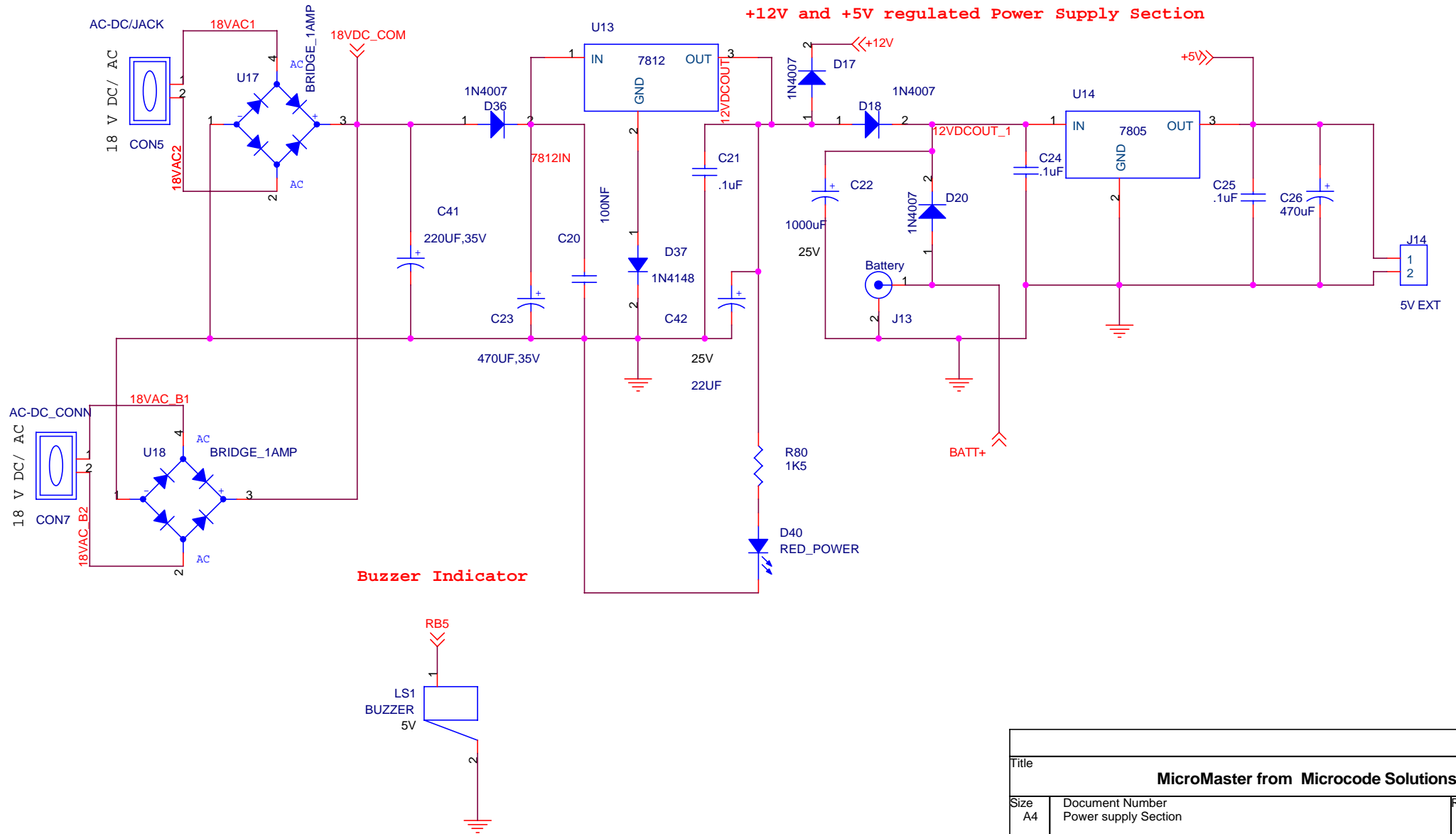
### 4\*4 Matrix Keyboard



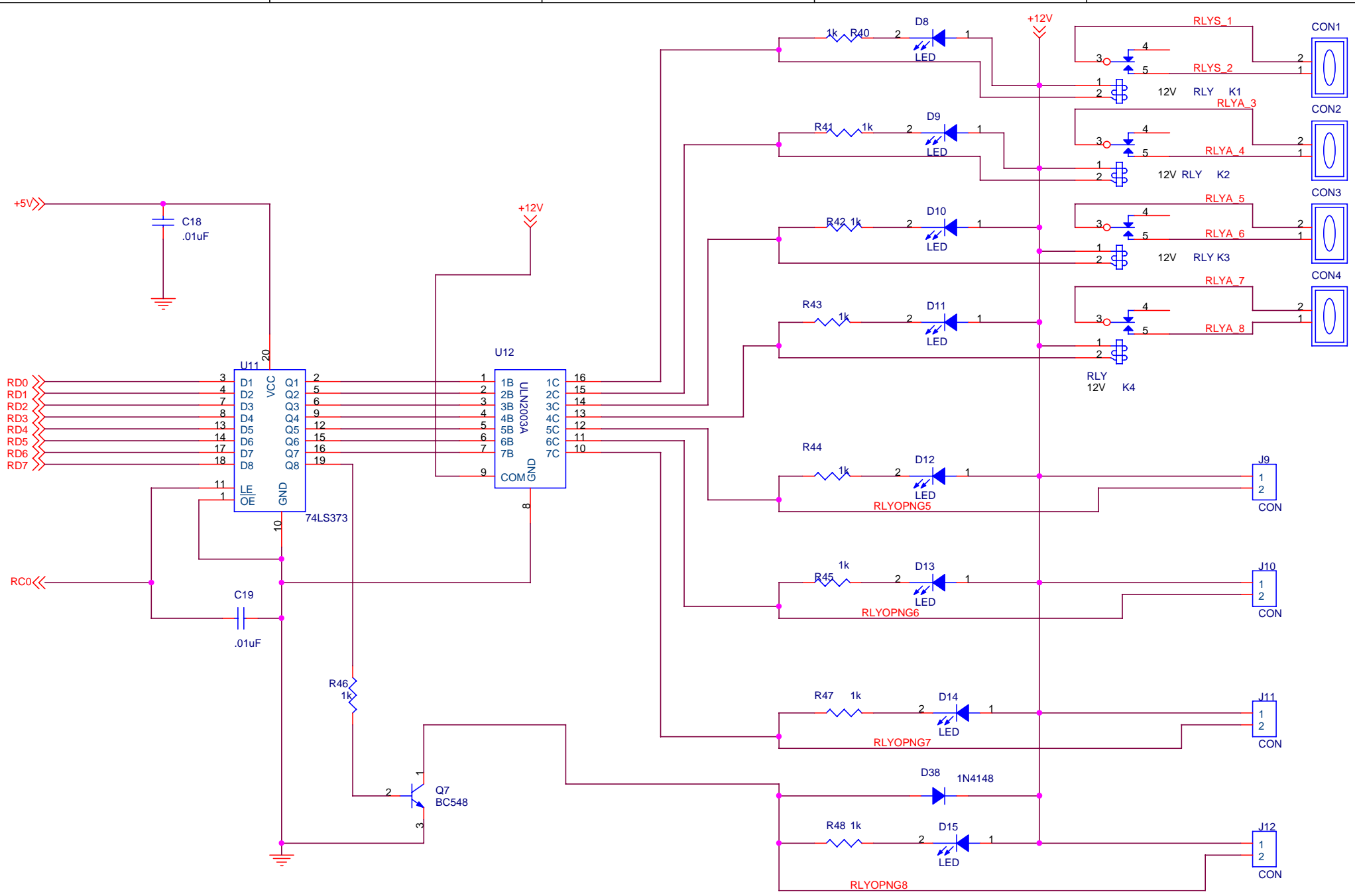
### LED array



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<b>Micromaster from Microcode Solutions</b>		
Size	Document Number	Rev
A4	4*4 Matrix Switch and LED	<RevCode>
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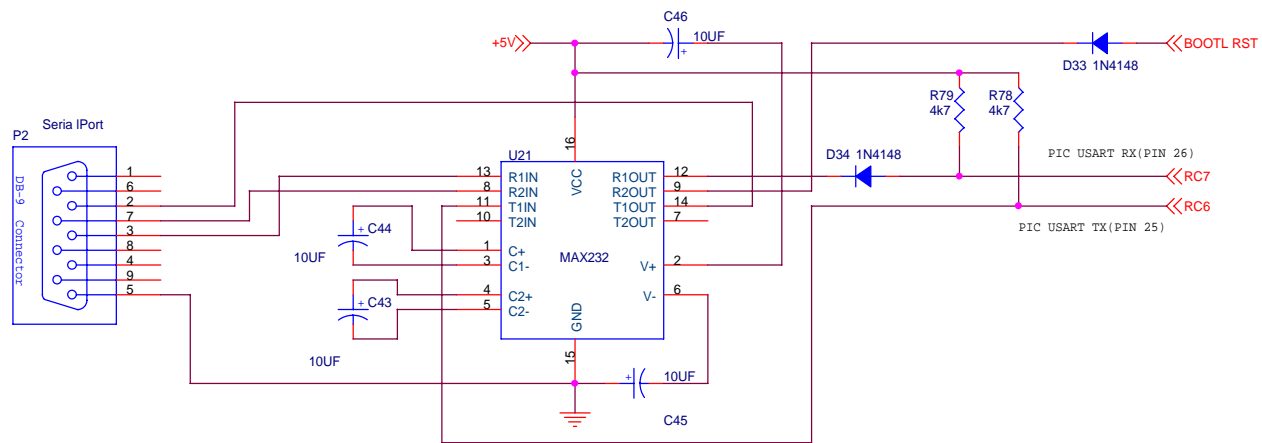


Title		
<b>MicroMaster from Microcode Solutions</b>		
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A4	Power supply Section	
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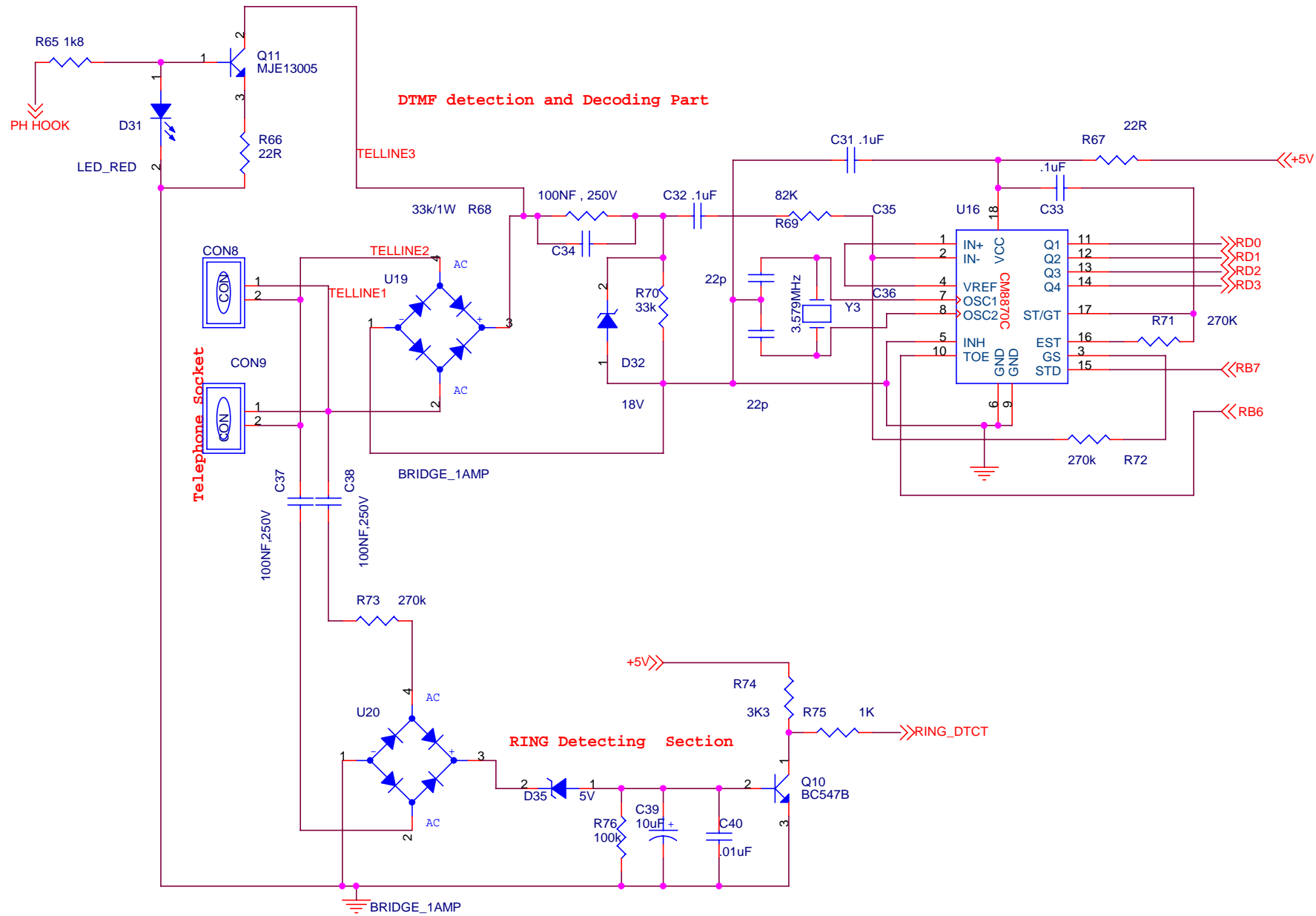
Title		
<b>MicroMaster from Microcode Solutions</b>		
Size	Document Number	Rev
	Output Latches and Relays	
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PC serial Port (RS 232)Interface



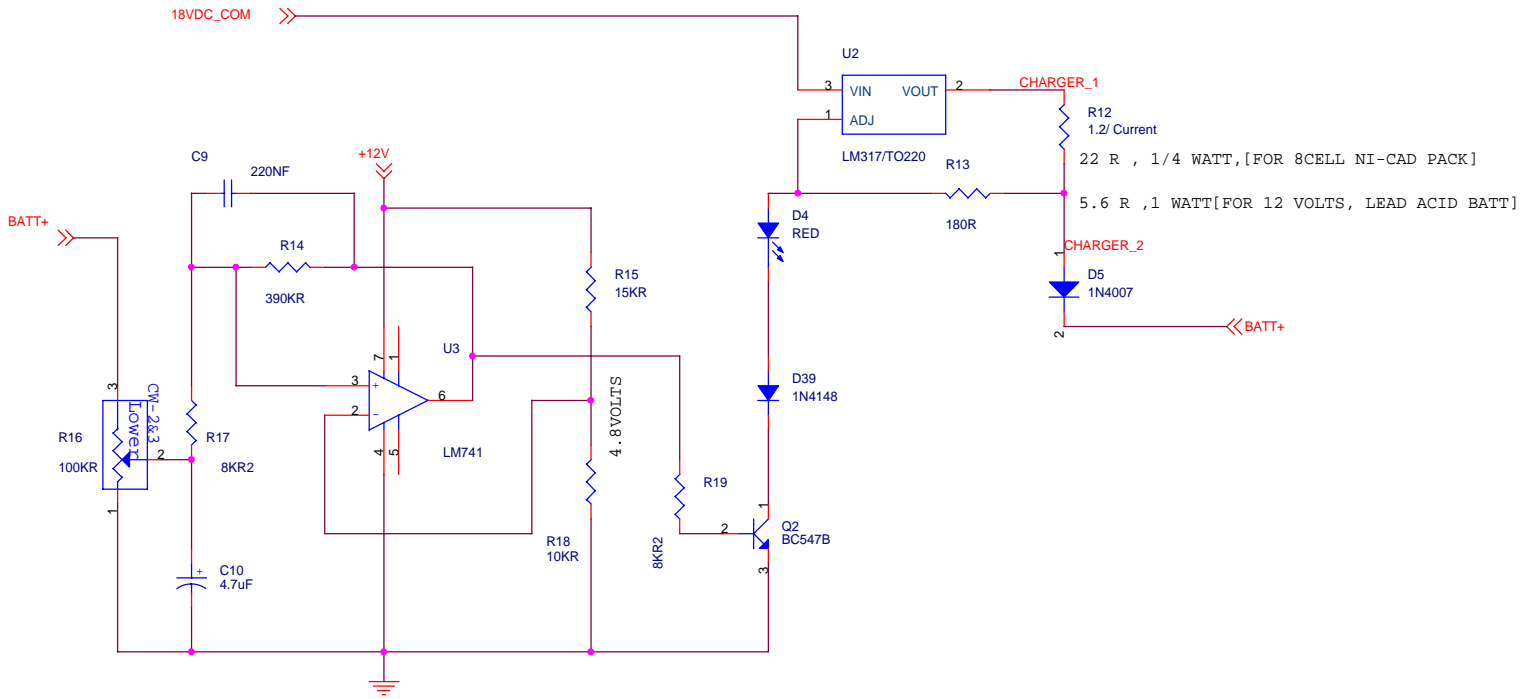
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<b>MicroMaster from Microcode Solutions</b>		
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<b>MicroMaster from Microcode Solutions</b>		
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	Telephone Interface circuits for DTMF decoding	
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## Charger Circuit for the Optional Battery Backup for Sheduler



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<b>MicroMaster from Microcode Solutions</b>		
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A4	Charger Circuit	<RevCode>
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**Happy 'PIC'ing**

**END OF SCHEMATICS**

