Ethernet remote device controller/sensor with LCD display

AVR NTP Clock

(only the connections of the LCD display to the atmega168 uC are shown here. For all other connections see the circuit diagram of the ethernet remote device circuit)

LCD (HD44780)

D7
D6
D5
D4
e
rw->gnd
rs
contrast   470
gnd
VCC-lcd
led+   100
led-
+5V

CONN5   IO-port

ATMEGA88/168

1	Rst(PC6)	(SCL)PC5	28
2	PD0 (RXD)	(SDA)PC4	27
3	PD1 (TXD)	(ADC3) PC3	26
4	PD2 (INT0)	(ADC2) PC2	25
5	PD3 (INT1)	(ADC1) PC1	24
6	PD4 (T0)	(ADC0) PC0	23
7	Vcc	AGND	22
8	GND	AREF	21
9	PB6(XTAL1)	AVcc	20
10	PB7(XTAL2)	(SCK) PB5	19
11	PD5 (T1)	(MISO) PB4	18
12	PD6 (AIN0)	(MOSI) PB3	17
13	PD7 (AIN1)	(OC1B) PB2	16
14	PB0(ICP1)	(OC1A) PB1	15

3V3 Vcc →

Reset to "factory default"

The clock requires an ATMEGA168

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