FRONT PANEL SWITCH INPUT

FRONT PANEL LED OUTPUT

J1 FPANEL

GND	1		2	GND	
VCC	3		4	VCC	
LED0	5		6	FP-D0	
LED1	7		8	FP-D1	
LED2	9		10	FP-D2	
LED3	11		12	FP-D3	
LED4	13		14	FP-D4	
LED5	15		16	FP-D5	
LED6	17		18	FP-D6	
LED7	19		20	FP-D7	
I2C_SDA	21		22	GND	
I2C_SCL	23		24	EXT_RES	
GND	25		26	IM2-EN	
RTS	27		28	IM2-EN-OE	
VCC-TS	29		30	INT0-EN	
RX	31		32	INT0	
TX	33		34	WAIT-EN	
CTS	35		36	WAIT	
VCC	37		38	VCC	
GND	39		40	GND	

J11 NOTE:

PINS 5, 7, 9, 11, 13, 15, 17, 19 ARE FOR LED STATUS FOR ROMWBW FRONT PANEL INDICATOR

PINS 6, 8, 10, 12, 14, 16, 18, 20 ARE FOR SWITCH INPUTS FOR ROMWBW FRONT PANEL

PINS 21, 23 ARE FOR I2C CONNECTION (SDA & SCL)

PINS 25, 27, 29, 31, 33, AND 35 ARE FOR TTL SERIAL CONNECTOR TO UART

PINS 29, 37 ARE FOR SERIAL VCC POWER ENABLE

PINS 22, 24 ARE FOR EXTERNAL RESET SWITCH

PINS 26, 28 ARE FOR IM2 CIRCUIT ENABLE

PINS 30, 32 ARE FOR INTERRUPT 0 ENABLE

PINS 34, 36 ARE FOR WAIT STATE CIRCUIT ENABLE

U1 74LS240

C1 0.1u

LED0	2	I0a O0a 18
LED1	4	I1a O1a 16
LED2	6	I2a O2a 14
LED3	8	I3a O3a 12
LED4	11	I0b O0b 9
LED5	13	I1b O1b 7
LED6	15	I2b O2b 5
LED7	17	I3b O3b 3

OEa 1
OEb 19
GND 10
VCC 20

D1 LED
D2 LED
D3 LED
D4 LED
D6 LED
D7 LED
D8 LED
D9 LED

RN1 470
VCC

SW9 SW_Push
GND

SW10 SW_SPDT
EXT_RES GND
IM2-EN IM2-EN-OE

SW11 SW_SPDT
INT0-EN INT0

SW12 SW_SPDT
WAIT-EN WAIT

SW13 SW_SPDT
VCC VCC-TS

FP-D0 GND SW_SPDT SW1
FP-D1 GND SW_SPDT SW2
FP-D2 GND SW_SPDT SW3
FP-D3 GND SW_SPDT SW4
FP-D4 GND SW_SPDT SW5
FP-D5 GND SW_SPDT SW6
FP-D6 GND SW_SPDT SW7
FP-D7 GND SW_SPDT SW8

NOTE: USE MTS-102 SPDT SWITCHES

TTL SERIAL TO USB CONNECTOR

J2 TTL SERIAL

GND	1
RTS	2
VCC-TS	3
RX	4
TX	5
CTS	6

SSD1306 OLED 128x64 DISPLAY

VCC

Brd1 SSD1306

GND	1
VCC	2
SCL	3
SDA	4

PCB 27.30mm*27.80mm
Panel Size 26.70mm*19.27mm
Active Area 21.74mm*10.86mm
11.3mm
1.2mm
1.5mm
inside diameter 2mm, external diameter 3.5mm

NOTE: I2C TO SD CARD CIRCUIT BASED ON
http://www.technoblogy.com/show?3XEP

U3 LP2950-3.3_TO92

VI VO
GND

C3 10u
C4 10u

R1 10K
R2 10K

Q1 TN0702
Q2 TN0702

R3 220

I2C_SCL
I2C_SDA

BI-COLOR LED D10

U4 ATtiny1614-SS

PB0	9	RESET/PA0 UPDI 10
PB1	8	PA1 DI 11
PB2	7	PA2 DO 12
PB3	6	PA3 CLK 13
		PA4 CS 2
		PA5 3
		PA6 4
		PA7 5

VCC
GND

NT1 NetTie_2
R4 4700
UPDI-RX
UPDI-TX

C5 0.1u
VDD1

J3 MICRO SD CARD

VCC	1
VDD1	2
GND	3
CLK	4
DO	5
DI	6
CS	7
	8

NOTE: ADAFRUIT MICRO SD CARD BREAKOUT BOARD

USB TO UPDI INTERFACE

J4 UPDI ONLY

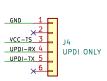|	
GND	1
	2
VCC-TS	3
UPDI-RX	4
UPDI-TX	5
	6

NOTE: ONLY ATTEMPT UPDI PROGRAMMING WITH FRONT PANEL DISCONNECTED FROM Z80 PROCESSOR BOARD. SW13 CONTROLS VCC POWER SUPPLIED TO ATTINY 1614 VIA THE USB TO UPDI INTERFACE. REMOVE UNNECESSARY COMPONENTS TO MINIMIZE USB CURRENT DRAW. (SD CARD ADAPTER, SSD1306 DISPLAY, AND 74LS240)

NOTE: USE TN0702 NMOS FET SOURCE/DRAIN/GATE

VCC PWR_FLAG
R6 470
D5 LED
PWR_FLAG

H1 MountingHole
H2 MountingHole
H3 MountingHole
H4 MountingHole
GND