SPX29150T-L-5-0/TR

V_IN   V_OUT
GND

VCC

6-7.2VDC   BT?

+BATT
C?
.1uf   C?
10uf   C?
10uf   C?
.1uf   C?
.1uf

P?
MISO   1   2   VCC
SCK   3   4   MOSI
RESET   5   6   GND
ISP

Sheet: BPS_Test_Sensors

X0 — X0   YOA — YOA
X1 — X1   YOB — YOB
X2 — X2   SMP — SMP
X3 — X3   VREF — AIN0

File: BPS_Test_Sensors.sch

VCC

C?
.1uf   C?
.1uf

33µH
L?
VCC

IC?
RESET   AVCC VCC VCC VCC

RESET

10k R?

TL3315NF160Q   S?
C?
.1uf   C?
8pF   X2 20 MHz
C?
8pF

XTAL2   7
XTAL1   8

VCC   29   AREF
C?
.1uf

(PCINT0/ADC0)PA0   37   YOB
(PCINT1/ADC1)PA1   36
(PCINT2/ADC2)PA2   35
(PCINT3/ADC3)PA3   34
(PCINT4/ADC4)PA4   33
(PCINT5/ADC5)PA5   32
(PCINT6/ADC6)PA6   31
(PCINT7/ADC7)PA7   30

(PCINT8/T0/XCK)PB0   40   YOA
(PCINT9/CLKO/T1)PB1   41   SMP
(PCINT10/AIN0/INT2)PB2 42   AIN0
(PCINT11/AIN1/OC0A)PB3 43
(PCINT12/OC0B/SS)PB4   44   SlaveSelect
(PCINT13/MOSI)PB5   1   MOSI
(PCINT14/MISO)PB6   2   MISO
(PCINT15/SCK)PB7   3   SCK

(PCINT16/SCL)PC0   19
(PCINT17/SDA)PC1   20
(PCINT18/TCK)PC2   21   X0
(PCINT19/TMS)PC3   22   X1
(PCINT20/TDO)PC4   23   X2
(PCINT21/TDI)PC5   24   X3
(PCINT23/TOSC1)PC6 25
(PCINT24/TOSC2)PC7 26

(PCINT24/RXD0)PD0   9
(PCINT25/TXD0)PD1   10
(PCINT26/RXD1/INT0)PD2 11
(PCINT27/TXD1/INT1)PD3 12
(PCINT28/XCK1/OC1B)PD4 13
(PCINT29/OC1A)PD5   14
(PCINT30/OC2B/ICP)PD6   15
(PCINT31/OC2A)PD7   16

GND GND GND
39 28 18 6

ATMEGA644P-A

Sheet: BPS_Test_Display

+5V
VIN

MOSI — DIN

SCK — CLK

VCC
10k R?

SlaveSelect — LOAD/CSN

File: BPS_Test_Display.sch

Projects and Stuff

X0 ◇ —[RX0]— ⊗ X0Y0R X CAPSENSOR
          1k

X1 ◇ —[RX1]— ⊗ X1Y0R X CAPSENSOR
          1k

X2 ◇ —[RX2]— ⊗ X2Y0R X CAPSENSOR
          1k

X3 ◇ —[RX3]— ⊗ X3Y0R X CAPSENSOR
          1k

Y0A ◇ —————•———[RY0]—
                    1k
          C90
          4.7nF

Y0B ◇ ————•

          RY0B
          470k

SMP ◇ ——

VREF ◇ —⬡ GND

Projects and Stuff