R45
470k
R46
2k
U2:B
LM293
R41
10k
D9
1N5231B
R42
100
R43
1k
C30
1n
C36
1u
R44
1k
.60-2
PIN
GND
+5V
+5V_PU
R2
2k
DH
PIN
R1
10k
D2
1N5231B
C35
100n
J4
TPS
DT
U2
NO2
AN1
S1
S2
DISP_CS
U1
S4
S3
DD_IN
FU1
FSMD010
+5V_OUT
C29
100n
D18
5V6
D6
BAS86
J3
DISP_SDA
EXT1
OUT2
OUT4
CE
TACH
GND_IN
DISP_SCK
OUT1
OUT3
OUT5
EPHH
12V_IN
+12V
D8
SHOTKY
U3
7805
VI
VO
C2
100n
C4
220u
C5
220u
C3
100n
C1
220u
C11
100n
R14
470k
R17
2k
U2:A
LM293
C31
1n
DUI
R8
10k
Q1
BC847B
D3
LL4148
R12
10k
D4
1N5231B
C15
1u
C34
1u
R11
100k
R9
100
R10
3k
C14
1n
R13
750
R59
R0
D15
BAT54S
R18
9.1k
R47
20k
C13
100n
C17
100n
2k21
R19
C7
15p
X1
8MHz
C8
15p
HIPOSC
MODE
MAP
MPX4115
R7
2k
C9
1n
DF
U1
OSC1/CLKIN
OSC2/CLKOUT
RA0/AN0
RA1/AN1
RA2/AN2/VREF-/CVREF
RA3/AN3/VREF+
RA4/T0CKI/C1OUT
RA5/AN4/SS/C2OUT
MCLR/Vpp/THV
RB0/INT
RB1
RB2
RB3/PGM
RB4
RB5
RB6/PGC
RB7/PGD
RC0/T1OSO/T1CKI
RC1/T1OSI/CCP2
RC2/CCP1
RC3/SCK/SCL
RC4/SDI/SDA
RC5/SDO
RC6/TX/CK
RC7/RX/DT
PIC18F2520
VDD=+5V
VSS=GND
R15
1k
D5
CE
R37
20k
D1
1N5231B
C12
100n
R34
20k
R6
20k
EXT1
D14
1N4007
FU2
FSMD010
Q2
IRF9630
R3
2k
+12V
R38
2k
R29
2k
R30
2k
R31
2k
R32
2k
D7
LL4148
C19
100n
CE
OUT5
OUT4
OUT3
OUT2
OUT1
U4
ULN2003A
COM
R24
2k
R25
2k
R26
2k
R27
2k
R28
2k
+5V_PU
R16
2k
D10
BAT54S
DT
R5
20k
C27
100n
C10
1n
D12
BAT54S
R50
20k
TPS
R39
20k
C28
100n
C18
1n
D11
BAT54S
R21
2k
AN1
R4
20k
C21
100n
C20
1n
S1
R55
10k
S2
R56
8k
S3
R57
4k
S4
R58
2k
R61
300
R48
1k
D13
1N5231B
D16
1N5231B
J1
CONN-D9F
U6
H11L1M
U7
H11L1M
R22
1k
R40
1k
R49
1k
TTL
CONN-SIL4
U5
CS
INT/HOLD
OSCIN
OSCOUT
TEST
VMID
CH0N/I
CH1N/I
SDO
SDI
SCK
INTOUT
CH1IN
CH1FB
CH0IN
CH0FB
MP9011AB
NC=GND
VDD=+5V
C39
22n
R51
68K
R52
10K
C40
3n3
R53
470k
DD_IN
TACH
Q3
KSE340STU
R23
1k
R20
4k7
U8
ULN2003A
R35
300
R36
300
R54
300
DISP_CS
DISP_SDA
DISP_SCK