PullUp

S1

SPEED
CW/T
EN
BRAKE
F/R
M.F.

R2
R3
R4

D1 D2

C2

R5

C4

C3

+5V PullUp VCCREF

CN1
2
1

JP1

R1

JP2

C5 D3

CN2
1
2

ENABLE R6 12 ENABLE
BRAKE 14 BRAKE
FRW/REV 11 FWR/REW

GND GND GND GND VBOOT VCP VSA VSB
6 7 18 19 15 22 20 17

U1
L6235

L6235

H1 R7 1 H1
H2 23 H2
H3 R8 24 H3
R9

OUT1 5
OUT2 21
OUT3 16

CN3
1
2
3

DIAG 2 DIAG
VREF 13 VREF
RCOFF 4
TACHO 8
RCPULSE 9
SENSE1 3
SENSE2 10

PullUp

DIAG

C6

C7

C8 R10 CW

C9 R11 CW

R12 R13 R14

VCCREF

CN4
ADC_REF 1 2 INT3 DIAG
SENSE A0IN6 P7.6 3 4 INT2
+5V 5 6
7 8
9 10 P2.2 RC/INH
11 12
13 14 TINA0 P2.0 ENABLE
15 16
17 18
19 20 P2.1 H1
21 22 P2.7 BRAKE
H1 P3.1 23 24
25 26 P2.5 H3
27 28 P2.6 FRW/REW
VREF OCMPA1 P4.2 29 30
31 32 P2.4 H2
33 34

CN5
1 H1
2 H2
3 H3
4 +5V
5

HALL CON

C10

R16

R15

R18

Pullup

R17 PullUp

U2A
LM358
2 - 4
3 + 1

R19

VREF R20

R22 CW

C11

C12

R21

+5V
8

+5V
8

TP U2B
LM358
5 -
6 + 7 TP

TP

Title
L 6235 EVALUATION BOARD
Size Document Number Rev
A3 1 2.1
Date: Tuesday, February 12, 2002 Sheet 1 of 1

L 6235 EVALUATION BOARD
1   Revision: 2.1
Bill Of Materials

Item	Quantity	Reference	Part
1	2	CN1,CN2	CON 2 PINS
2	1	CN3	CON 3 PINS
3	1	CN4	CON 34 PINS
4	1	CN5	CON 5 PINS
5	1	C1	Kemet Electronics 220nF/100V CER
6	1	C2	Siemens Matsushita 220nF/100V POLIEST
7	1	C3	Panasonic FA 100uF/63V
8	1	C4	Siemens Matsushita 10nF/100V CER
9	1	C5	Panasonic KG 10uF/16V
10	1	C6	33nF
11	1	C7	1nF
12	1	C8	820pF
13	1	C9	10nF
14	1	C10	220nF
15	1	C11	68nF
16	1	C12	100nF
17	2	D1,D2	1N4448
18	1	D3	Zener BZX79C5V1
19	2	JP1,JP2	JUMPER
20	1	R1	700ohm 0.6W
21	6	R2,R3,R4,R7,R8,R9	10k 5% 0.25W
22	1	R5	100 5% 0.25W
23	2	R15,R6	1k 0.25W
24	2	R11,R10	Spectrol74W 100k
25	3	R12,R13,R14	1OHM 0,4W
26	1	R16	1M
27	1	R17	20k 1% 1/4W
28	1	R18	4.7k 0.25W
29	1	R19	5.6k 1% 0.25W
30	1	R20	2.2k
31	1	R21	1.8k 1% 0.25W
32	1	R22	Spectrol74W 5k
33	1	S1	quad SW 2pos
34	1	U1	L6235N
35	1	U2	LM358

Important Notes
JP1 :   close for use with PractiSPIN ST7 board
JP2 :   close for use with PractiSPIN ST7 board
C6 :   recommended change to 5.6nF for safe Overcurrent protection
R2 :   recommended change to 100k for safe Overcurrent protection
R6 :   recommended change to 100k (and remove R2) if EN pin is driven
    from the CN4 connector (for example with PractiSPIN ST7 board), for safe Overcurrent protection
R22 :   set the maximum current obtainable through PractiSPIN (see PractiSPIN documentation)
R1 :   recommended change to adequate value (depending on supply voltage)
    to obtain 5V across D3
S1 :   switch first switch in TRQ position for use with PractiSPIN ST7 board