

Figure 1: FLEX Full Base Board

MORS1 (9-36 V power supply)

| | |
|-------|-------|
| Pin 1 | VINA |
| Pin 2 | VINB |
| Pin 3 | EARTH |

LEDs

| | |
|--------------|----------------------------------|
| DL1 (green) | Input power supply |
| DL2 (green) | Internal +5V power line activity |
| DL3 (green) | Internal +3V power line activity |
| DL4 (yellow) | dsPIC® DSC (e.g. for debugging) |
| DL5 (yellow) | Internal PIC18 |
| DL6 (red) | USB cable connection monitor |

Other Connectors

- USB connector [CON2]
- ICD2 connector [CON4]

| Jumper | pos. 1-2 | pos. 2-3 |
|--------|-------------|-----------------------|
| JP3 | GND | - |
| JP4 | GND | - |
| JP5 | EARTH | - |
| JP6 | +3.3V | +AV DD _{ext} |
| JP7 | GND | AV SS _{ext} |
| JP8 | +5V | +3.3V |
| JP9 | +USB | +5V |
| JP10 | DSP_MCLR | PIC18_MCLR |
| JP11 | DSP_PDATA | PIC18_PDATA |
| JP12 | DSP_PCLK | PIC18_PCLK |
| JP13 | VDD pull up | - |
| JP15 | SOSCI | CRYSTAL |
| JP16 | SOSCO | CRYSTAL |
| JP17 | GND | EARTH |

Note: Default jumper settings are indicated with grey background



Document Type: Technical data sheet [page 2 of 3]

Previous version & Author: v1 (03.07.2008) - Shiva

Product Code: FLEX003

Product Name: FLEX Full Base Board

Current version & Author: v1 (03.07.2008) - Shiva

CON6 for Piggybacking

| | | | |
|--------|---------------------------|--------|--------------------------------|
| Pin 1 | GND | Pin 2 | GND |
| Pin 3 | GND | Pin 4 | GND |
| Pin 5 | PGD2/EMUD2/SOSCI/CN1/RC13 | Pin 6 | PGC2/EMUC2/SOSCO/T1CK/CN0/RC14 |
| Pin 7 | AN17/T3CK/T6CK/RC2 | Pin 8 | AN18/T4CK/T9CK/RC3 |
| Pin 9 | AN19/T5CK/T8CK/RC4 | Pin 10 | SCK2/CN8/RG6 |
| Pin 11 | SDI2/CN9/RG7 | Pin 12 | SDO2/CN10/RG8 |
| Pin 13 | DSP _{MCLR} | Pin 14 | SS2/CN11/RG9 |
| Pin 15 | TMS/RA0 | Pin 16 | AN20/FLTA/INT1/RE8 |
| Pin 17 | AN21/FLTB/INT2/RE9 | Pin 18 | AN5/QEB/CN7/CN7/RB5 |
| Pin 19 | AN4/QEA/CN6/RB4 | Pin 20 | AN3/INDX/CN5/RB3 |
| Pin 21 | AN2/SS1/CN4/RB2 | Pin 22 | V _{ref-} /RA9 |
| Pin 23 | V _{ref+} /RA10 | Pin 24 | AV DD _{ext} |
| Pin 25 | AV SS _{ext} | Pin 26 | AN8/RB8 |
| Pin 27 | AN9/RB9 | Pin 28 | AN10/RB10 |
| Pin 29 | AN11/RB11 | Pin 30 | TCK/RA1 |
| Pin 31 | U2CTS/RF12 | Pin 32 | U2RTS/RF13 |
| Pin 33 | AN13/RB13 | Pin 34 | AN12/RB12 |
| Pin 35 | IC7/U1CTS/CN20/RD14 | Pin 36 | AN15/OCFB/CN12/RB15 |
| Pin 37 | U2RX/CN17/RF4 | Pin 38 | IC8/U1RTS/CN21/RD15 |
| Pin 39 | U1TX/RF3 | Pin 40 | U2TX/CN18/RF5 |
| Pin 41 | SDO1/RF8 | Pin 42 | U1RX/RF2 |
| Pin 43 | SCK1/INT0/RF6 | Pin 44 | SDI1/RF7 |
| Pin 45 | SCL1/RG2 | Pin 46 | SDA1/RG3 |
| Pin 47 | SDA2/RA3 | Pin 48 | SCL2/RA2 |

CON6 for Piggybacking

| | | | |
|--------|------------------------|--------|----------------------|
| Pin 49 | TD0/RA5 | Pin 50 | TDI/RA4 |
| Pin 51 | PGD3/EMUD3/AN0/CN2/RB0 | Pin 52 | DSP _{PCLK} |
| Pin 53 | PGC3/EMUC3/AN1/CN3/RB1 | Pin 54 | DSP _{PDATA} |
| Pin 55 | 5V _{out} | Pin 56 | 5V _{out} |
| Pin 57 | 3V _{out} | Pin 58 | 3V _{out} |
| Pin 59 | GND | Pin 60 | GND |
| Pin 61 | V _{out} | Pin 62 | V _{out} |
| Pin 63 | GND _{out} | Pin 64 | GND _{out} |

CON3 for Piggybacking (PIC18F2550)

| | | | |
|--------|--|--------|----------------------------------|
| Pin 1 | +VDD _{out} | Pin 2 | GND |
| Pin 3 | RA0/AN0 | Pin 4 | RB4/AN11/KB10 |
| Pin 5 | RA1/AN1 | Pin 6 | RB3/AN9/CCP2/VPO |
| Pin 7 | RA2/AN2/V _{ref-} /CV _{ref} | Pin 8 | RC7/RX/DT/SDO |
| Pin 9 | RA3/AN3/V _{ref+} | Pin 10 | RC6/TX/CK |
| Pin 11 | RA5/AN4/HLVDin/C2 _{out} | Pin 12 | RC2/CCP1 |
| Pin 13 | RC1/T1OSI/CCP2/UOE# | Pin 14 | RA4/T0CKI/C1 _{out} /RCV |
| Pin 15 | L _{MCLR} | Pin 16 | RC0/T1OSO/T1CKI |

| CON5 for Piggybacking | | | |
|-----------------------|--------------------|--------|-------------------|
| Pin 1 | V _{out} | Pin 2 | 5V _{out} |
| Pin 3 | Gnd _{out} | Pin 4 | 3V _{out} |
| Pin 5 | INT3/RA14 | Pin 6 | Gnd |
| Pin 7 | IC1/RD8 | Pin 8 | INT4/RA15 |
| Pin 9 | IC3/RD10 | Pin 10 | IC2/RD9 |
| Pin 11 | OC1/RD0 | Pin 12 | IC4/RD11 |
| Pin 13 | OC3/RD2 | Pin 14 | OC2/RD1 |
| Pin 15 | IC5/RD12 | Pin 16 | OC4/RD3 |
| Pin 17 | OC5/CN13/RD4 | Pin 18 | IC6/CN19/RD13 |
| Pin 19 | OC7/CN15/RD6 | Pin 20 | OC6/CN14/RD5 |
| Pin 21 | C1RX/RF0 | Pin 22 | OC8/UPDNCN16/RD7 |
| Pin 23 | C2TX/RG1 | Pin 24 | C1TX/RF1 |
| Pin 25 | AN22/CN22/RA6 | Pin 26 | C2RX/RG0 |
| Pin 27 | PWM1L/RE0 | Pin 28 | AN23/CN23/RA7 |
| Pin 29 | CSD0/RG14 | Pin 30 | PWM1H/RE1 |
| Pin 31 | CSD0/RG13 | Pin 32 | CSDI/RG12 |
| Pin 33 | PWM2H/RE3 | Pin 34 | PWM2L/RE2 |
| Pin 35 | COFS/RG15 | Pin 36 | PWM3L/RE4 |
| Pin 37 | PWM4L/RE6 | Pin 38 | PWM3H/RE5 |
| Pin 39 | AN16/T2CK/T7CK/RC1 | Pin 40 | PWM4H/RE7 |

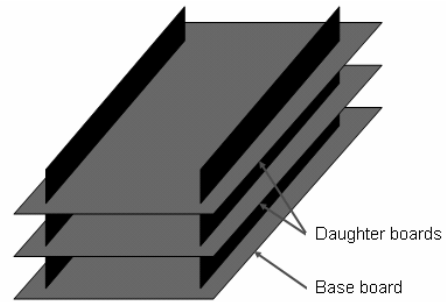


Figure 2: Piggybacking FLEX Boards

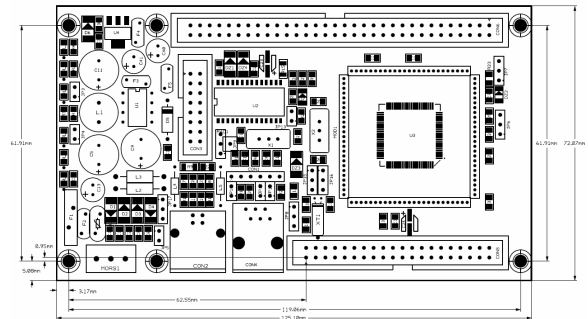


Figure 3: FLEX Full Base Board Dimensions