

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

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/FLT/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	C5CK/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

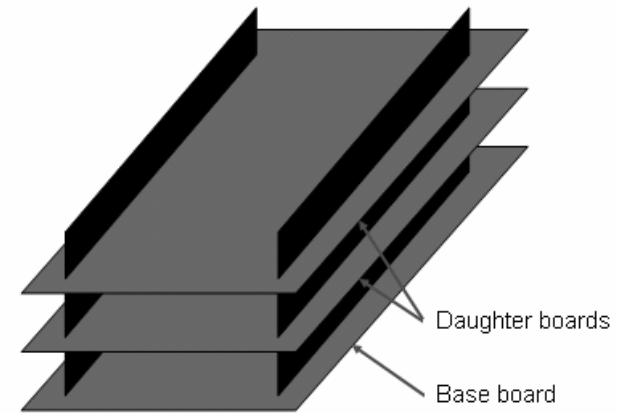


Figure 2: Piggybacking FLEX Boards

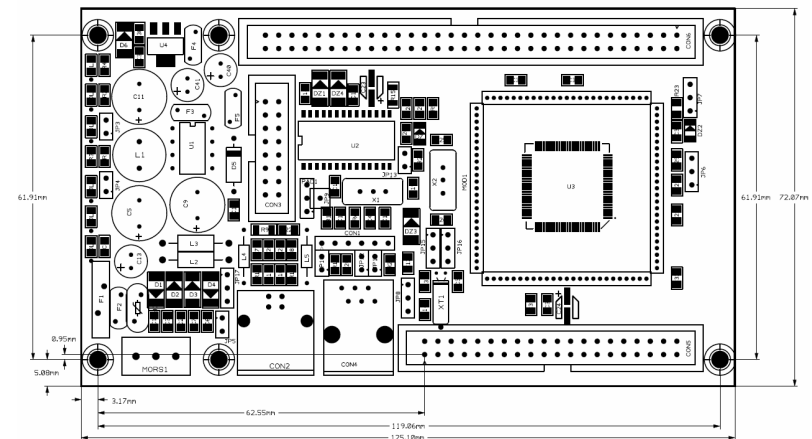


Figure 3: FLEX Full Base Board Dimensions