

RE5	1	2
RE7	3	4
RG7	5	6
RESET	7	8
GND	9	10
RB5	11	12
RB3	13	14
RB1	15	16

RB6	1	2
AVDD	3	4
RB8	5	6
CVREF	7	8
GND	9	10
RB12	11	12
RB14	13	14
RF4	15	16

JP5

RC13	1	2
RD11	3	4
RD9	5	6
GND	7	8
RC12	9	10
RG2	11	12
RF6	13	14
RF3	15	16

JP4

RD0	JP4-4
RD1	JP6-16
RD2	JP6-15
RD3	JP6-14
RD4	JP6-13
RD5	JP6-12
RD6	JP6-11
RD7	JP6-10
RD8	JP4-8
RD9	JP4-5
RD10	JP4-6
RD11	JP4-3

RE4	1	2
RE2	3	4
RE0	5	6
RF0	7	8
GND	9	10
RD6	11	12
RD4	13	14
RD2	15	16

JP6

I2C	+5V	1	2
	SDA1	3	4
	GND	5	6
	SCL1	7	8
	3V3	9	10
	GND	11	12
IAS12		13	14
	+5V	15	16
	U1RX	17	18
	U1TX	19	20

JP8

BV513 Socket Layout v7a/b

PORT B		
RB0	JP3-16	
RB1	JP3-15	
RB2	JP3-14	
RB3	JP3-13	
RB4	JP3-12	
RB5	JP3-11	
RB6	JP5-1	
RB7	JP5-2	
RB8	JP5-5	5
RB9	JP5-6	
CVREF	JP5-7	
RB11	JP5-8	
RB12	JP5-11	
RB13	JP5-12	
RB14	JP5-13	
RB15	JP5-14	6

PORT C		
RC12	JP4-9	4
RC13	JP4-1	1
RC14	JP4-2	1
RC15	JP4-10	

PORT E		
RE0	JP6-5	
RE1	JP6-4	
RE2	JP6-3	
RE3	JP6-2	
RE4	JP6-1	
RE5	JP3-1	
RE6	JP3-2	
RE7	JP3-3	

PORT F		
RF0	JP6-7	3
RF1	JP6-6	2
RF2	JP4-16	
RF3	JP4-15	
RF4	JP5-15	
RF5	JP5-16	
RF6	JP4-13	

PORT F		
RF0	JP6-7	3
RF1	JP6-6	2
RF2	U1RX	
RF3	U1TX	
RF4	U2RX	
RF5	U2TX	
RF6	SCK1	

PORT G		
RG2	JP4-11	
RG3	JP4-14	
RG6	JP3-4	
RG7	JP3-5	
RG8	JP3-6	
RG9	JP3-8	

PORT G		
RG2	SCL1	
RG3	SDA1	
RG6	SCK2	
RG7	SDI2	
RG8	SDO2	
RG9	#SS2	

Notes

1	The RTC 32KHz crystal is connected to these
2	Also connected to the Prog. Pin 3 of JP7
3	Also connected to /CS of the Micro SD Card
4	Also connected to /CD of the Micro SD Card
5	Also connected to /RTS on the USB FT232RL Chip
6	Also connected to /CTS on the USB FT232RL Chip
7	Vref+/CVref+
8	Vref-/CVref-
9	CVrefout
10	Connected to SD Card LED

BV513 Socket Layout v7a/b

PORT G

RG2	JP4-11
RG3	JP4-14
RG6	JP3-4
RG7	JP3-5
RG8	JP3-6
RG9	JP3-8

PORT G

RG2	SCL1
RG3	SDA1
RG6	SCK2
RG7	SDI2
RG8	SDO2
RG9	#SS2

PORT G

RG2	
RG3	
RG6	PMA5
RG7	PMA4
RG8	PMA3
RG9	PMA2

PORT G

RG2	
RG3	
RG6	CN8
RG7	CN9
RG8	CN10
RG9	CN11

PORT F

RF0	JP6-7	3
RF1	JP6-6	2
RF2	JP4-16	
RF3	JP4-15	
RF4	JP5-15	
RF5	JP5-16	
RF6	JP4-13	

PORT F

RF0	
RF1	
RF2	UIRX
RF3	UITX
RF4	U2RX
RF5	U2TX
RF6	

PORT F

RF0	
RF1	
RF2	SDI1
RF3	SDO1
RF4	SDA2
RF5	SCL2
RF6	SCK1

PORT F

RF0	
RF1	
RF2	
RF3	
RF4	PMA9
RF5	PMA8
RF6	

PORT F

RF0	
RF1	
RF2	
RF3	
RF4	CN17
RF5	CN18
RF6	

PORT F

RF0	
RF1	
RF2	
RF3	
RF4	
RF5	
RF6	INT0/BCLK1

PORT E

RE0	JP6-5
RE1	JP6-4
RE2	JP6-3
RE3	JP6-2
RE4	JP6-1
RE5	JP3-1
RE6	JP3-2
RE7	JP3-3

PORT E

RE0	PMD0
RE1	PMD1
RE2	PMD2
RE3	PMD3
RE4	PMD4
RE5	PMD5
RE6	PMD6
RE7	PMD7

PORT D

RD0	JP4-4
RD1	JP6-16
RD2	JP6-15
RD3	JP6-14
RD4	JP6-13
RD5	JP6-12
RD6	JP6-11
RD7	JP6-10
RD8	JP4-8
RD9	JP4-5
RD10	JP4-6
RD11	JP4-3

PORT D

RD0	OC1
RD1	OC2
RD2	OC3
RD3	OC4
RD4	OC5
RD5	
RD6	
RD7	
RD8	RTCC
RD9	#U1CTS
RD10	PMCS2
RD11	PMCS1

PORT D

RD0	
RD1	
RD2	
RD3	
RD4	PMWR
RD5	PMRD
RD6	
RD7	
RD8	
RD9	
RD10	PMA15
RD11	PMA14

PORT D

RD0	
RD1	
RD2	
RD3	
RD4	IC5
RD5	
RD6	
RD7	
RD8	IC1
RD9	IC2
RD10	IC3
RD11	

PORT D

RD0	
RD1	
RD2	
RD3	
RD4	CN13
RD5	CN14
RD6	CN15
RD7	CN16
RD8	
RD9	
RD10	
RD11	

PORT D

RD0	
RD1	
RD2	
RD3	
RD4	
RD5	
RD6	
RD7	
RD8	INT1
RD9	INT2
RD10	INT3
RD11	INT4

PORT C

RC12	JP4-9	4
RC13	JP4-1	1
RC14	JP4-2	1
RC15	JP4-10	10

PORT C

RC12	OSC1
RC13	SOSC
RC14	SOSCO
RC15	OSC2

PORT C

RC12	CLKI
RC13	
RC14	TICK
RC15	CLKO

PORT C

RC12	
RC13	CN1
RC14	CN0
RC15	

PORT B

RB0	JP3-16	7
RB1	JP3-15	8
RB2	JP3-14	
RB3	JP3-13	
RB4	JP3-12	
RB5	JP3-11	
RB6	JP5-1	
RB7	JP5-2	
RB8	JP5-5	5
RB9	JP5-6	
RB10	JP5-7	9
RB11	JP5-8	
RB12	JP5-11	
RB13	JP5-12	
RB14	JP5-13	
RB15	JP5-14	6

PORT B

RB0	CN2
RB1	CN3
RB2	CN4
RB3	CN5
RB4	CN6
RB5	CN7
RB6	
RB7	
RB8	#U2CTS
RB9	
RB10	
RB11	
RB12	
RB13	
RB14	#U2RTS
RB15	CN12

PORT B

RB0	AN0
RB1	AN1
RB2	AN2
RB3	AN3
RB4	AN4
RB5	AN5
RB6	AN6
RB7	AN7
RB8	AN8
RB9	AN9
RB10	AN10
RB11	AN11
RB12	AN12
RB13	AN13
RB14	AN14
RB15	AN15

PORT B

RB0	PMA6
RB1	
RB2	C2IN-
RB3	C2IN+
RB4	C1IN-
RB5	C1IN+
RB6	OCFA
RB7	
RB8	C1OUT
RB9	C2OUT
RB10	PMA13
RB11	PMA12
RB12	PMA11
RB13	PMA10
RB14	PMA1
RB15	PMA0

PORT B

RB0	PGD1
RB1	PGC1
RB2	
RB3	
RB4	
RB5	
RB6	PGC2
RB7	PGD2
RB8	
RB9	PMA7
RB10	
RB11	
RB12	
RB13	
RB14	PMALH
RB15	PMALL

PORT B

RB0	EMUD
RB1	EMUC1
RB2	#SS1
RB3	
RB4	
RB5	
RB6	EMUC2
RB7	ENUD2
RB8	
RB9	
RB10	TMS
RB11	TDO
RB12	TCK
RB13	TDI
RB14	BCLK2
RB15	OCFB