

Feature	Pin Description Array Number	Mapped Pin Name	SAM3X Pin Name	M2 Board Signal Name	Notes	Processor CHIP physical PIN
LEDs	14	DS2	PD10	DS2 (RED)		32
	15	DS3	PA5	DS3 (YELLOW)		25
	16	DS4	PD2	DS4 (YELLOW)		15
	17	DS5	PA15	DS5 (YELLOW)		8
	18	DS6	PA14	DS6 (GREEN)		7
	19	DS7_BLUE / RGB_BLUE	PC25	RGB BLUE		136
	20	DS7_RED / RGB_RED	PD7	RGB RED		20
	21	DS7_GREEN / RGB_GREEN	PD8	RGB GREEN		21
Buttons	22	BUTTON1	PC27	TACT SW1	R/H Button Pressed = LOW	138
	23	BUTTON2	PB6	TACT SW2	L/H Button Pressed = LOW	121
SD Card MOSI	36	SD_SW	PC30	SD_SW	Card inserted = LOW	103
	37	MCCK	PA19	MCCK		71
	38	MCCDA	PA20	MCCDA		72
	39	MCDA0	PA21	MCDA0		107
	40	MCDA1	PA22	MCDA1		81
	41	MCDA2	PA23	MCDA2		80
	42	MCDA3	PA24	MCDA3		79
SD Card SPI	46	SPIO_CS1	PA29	SPIO_nCS1	Not connected by default	112
	44	SPIO_MOSI	PA26	SPIO MOSI	Not connected by default	109
	45	SPIO_CLK	PA27	SPIO CLK	Not connected by default	110
	43	SPIO_MISO	PA25	SPIO MISO	Not connected by default	108
GPIO	24	GPIO1	PC3	GPIO1 A	PWMH0	60
	25	GPIO2	PC5	GPIO2 A	PWMH1	63
	26	GPIO3	PC7	GPIO3 A	PWMH2	65
	27	GPIO4	PC9	GPIO4 A	PWMH3	67
	28	GPIO5	PC20	GPIO5 A	PWMH4	131
	29	GPIO6	PC19	GPIO6 A	PWMH5	101
	30	GPIO1_B	PC2	GPIO1 B	PWML0 (Beta Hardware Only)	59
	31	GPIO2_B	PC4	GPIO2 B	PWML1 (Beta Hardware Only)	116
	32	GPIO3_B	PC6	GPIO3 B	PWML2 (Beta Hardware Only)	64
	33	GPIO4_B	PC8	GPIO4 B	PWML3 (Beta Hardware Only)	66
	34	GPIO5_B	PC21	GPIO5 B	PWML4 (Beta Hardware Only)	132
	35	GPIO6_B	PC22	GPIO6 B	PWML5 (Beta Hardware Only)	133
Analogue Inputs	86	ANALOG_1	PB19	ANA 1	J5 Pin 1	90
	87	ANALOG_2	PB18	ANA 2	J5 Pin 5	89
	88	ANALOG_3	PA2	ANA 3	J5 Pin 9	85
	89	ANALOG_4	PA4	ANA 4	J5 Pin 13	83
	90	ANALOG_5	PA3	ANA 5	J5 Pin 17	84
	91	ANALOG_6	PA16	ANA 6	J5 Pin 21	78
GPIO Power Supply Current Sense	75	I_SENSE_EN	PC24	12Vio_EN	GPIO Power Supply Enable	135
	93	I_SENSE	PB17	I SENSE 12V	GPIO Power Supply Analog Current Sense	88
	76	I-SENSE_INT	PD1	OVER_CURRENT	GPIO Power Supply Interrupt	14
	95	I-SENSE_DAC	PB16	DAC1	GPIO Power Supply Analog Output to Comparator	77
CAN	69	CANRX0	PA1	CANRX0		24
	70	CANTX0	PA0	CANTX0		23
	71	CAN0_CS / HS_CS	PD3	HSC_S		16
	72	CANRX1	PB15	CANRX1		76
	73	CANTX1	PB14	CANTX1		140
	25	CAN1_CS / MS_CS	PD0	MSC_S		13
Power Supply	48	PS_BUCK / BUCK_DIS	PC10	BUCK_nDIS		117
	49	PS_J1850_9141	PB5	J1850_9141 ON	Bring LOW for LOW power	120
J1850	50	J1850PWM_VPW	PB8	J1850_PWM_nVPW		123
	51	J1850_PWM_RX	PC28	J1850_PWM_RX		139
	52	J1850_VPW_RX	PC26	J1850_VPW_RX		137
	53	J1850P_TX	PC18	J1850+_TX		100
	54	J1850N_TX	PC23	J1850-_TX		134
	0	XBEE_RX / RX0	PA8	XB_UART RX	UART serial URXD	27
	1	XBEE_TX / TX0	PA9	XB_UART TX	UART serial UTXD	2

XBEE	4	XBEE_RST	PC11	XB_nRST		93
	7	XBEE_PWM	PB3	XB_RSSI_PWM		118
	11	XBEE_MULT4	PD6	XB_MULT4		19
	12	XBEE_MULT5	PD9	XB_MULT5		22
	8	XBEE_MULT1	PC12	XB_MULT1		94
	3	XBEE_CTS	PB26	XB_nCTS		1
	5	XBEE_STAT	PC13	XB_STAT		95
	6	XBEE_VREF	PC14	XB_Vref		96
	9	XBEE_MULT2	PC15	XB_MULT2		97
	2	XBEE_RTS	PB25	XB_nRTS		144
	10	XBEE_MULT3	PC17	XB_MULT3		99
	13	XBEE_MULT6	PA7	XB_MULT6		26
9141/LIN	55	LIN_KTX	PA11	9141 K TX	Serial1	4
	56	LIN_KRX	PA10	9141 K RX		3
	57	LIN_KSLP	PB4	9141 K SLP		119
	58	LIN_LTX	PA13	9141 L TX	Serial2	6
	59	LIN_LRX	PA12	9141 L RX		5
	60	LIN_LSLP	PB7	9141 L SLP		122
Single Wire CAN	65	SWC_M1	PB0	SWC M1		113
	64	SWC_M0	PB27	SWC M0		68
	68	SWC_SOF	PC29	SWC SOF		102
	66	SWC_CLK	PB22	SWC CLK		141
	63	SPIO_CS3	PB23	SPIO_nCS3		142
	67	SWC_INT	PC16	SWC nINT		98
	61	SWC_RX0	PB1	SWC nRX0BF		114
	62	SWC_RX1	PB2	SWC nRX1BF		115
SPIO	43	SPIO_MISO	PA25	SPIO MISO	Optionally connected to SD Card	108
	44	SPIO_MOSI	PA26	SPIO MOSI	Optionally connected to SD Card	109
	45	SPIO_CLK	PA27	SPIO CLK	Optionally connected to SD Card	110
	46	SPIO_CS1	PA29	SPIO_nCS1	Optionally connected to SD Card	112
	47	SPIO_CS0	PA28	SPIO_nCS0		111
GPIO Connector	77	TXD3	PD4	UART3 TX	J5 Pin 7 (3.3V UART)	17
	78	RXD3	PD5	UART3 RX	J5 Pin 8 (3.3V UART)	18
	79	SDA0	PA17	SDA0	J5 Pin 4	9
	80	SCL0	PA18	SCL0	J5 Pin 3	70
	83	SPI_CS2	PB21	USART2RX	J5 Pin 15	92
MISC	92	V_SENSE	PA6	AD3	Analogue input Vehicle Volts	82
	94	CPU_TEMP / A15	PD5	Internal	CPU Temperature	Internal
Eeprom Memory (I2C)	81	SDA1	PB12	SDA1	Eeprom	86
	82	SCL1	PB13	SCL1		87
CPU Test Point	84	USART2TX	PB20	USART2TX	TP5 U2TX	91
unconnected	85	unconnected	PC1	unconnected	not connected	55
			PB10	UOTGVBOF		128
			PB11	UOTGID		129
			PC0	ERASE_S		130
			PB24	USART2 CK		143
			VDDCORE1	VDDOUT		10
			VDDCORE3	VDDOUT		61
			VDDCORE4	VDDOUT		104
			VDDCORE5	VDDOUT		124
			VDDIO1	+3.3V		11
			VDDIO2	+3.3V		62
			VDDIO3	+3.3V		105
			VDDIO4	+3.3V		125
			GND1	DGND		12
			GND2	DGND		58
			GND3	DGND		106
			GND4	DGND		126
			GNDPLL	DGND		33
			GNDANA	DGND		74
			VDDPLL	VDDPLL		34
			XOUT	XOUT	Crystal	35
			XIN	XIN	Crystal	36

CPU System Pins		DHSDP	D+	Micro USB pin3	37
		DHSDM	D-	Micro USB pin2	38
		XUSB	VBUS	Micro USB pin1 +5Volts	39
		VBG	VBG		40
		VDDUTMI	VDDUTMI		41
		DFSDP	DFSDP		42
		DFSDM	DFSDM		43
		GNDUTMI	DGND	Grounded pin	44
		GNDUTMI	VDDOUT		45
		JTAGSEL	DGND	Grounded pin	46
		NRSTB	M_nRST/SWC nRESET	MCP2515 Reset	47
		XIN32	XIN32	N/C	48
		XOUT32	XOUT32	N/C	49
		SHDN		N/C	50
		TST		Grounded via Resistor	51
		VDDBU		+3.3V via Resistor	52
		FWUP		+3.3V via Resistor	53
		GNDBU		Grounded pin	54
		VDDOUT	VDDOUT		56
		VDDIN	+3.3V		57
		NRST	TP5		69
		VDDANA	VDDANA	Voltage Analogue	73
		GNDANA	DGND	Ground Analogue	74
		ADVREF	DGND	Analogue Digital Volt ref	75
		PB9			127
Test & Programing Pins		PB28	JTAG-TCK	TP1	28
		PB29	JTAG-TDI	TP2	29
		PB30	JTAG_TDO	TP3	30
		PB31	JTAG-TMS	TP4	31