



Every i.Mx6 and SAM3X pin can carry an alternate function. Up to 8 alternate function are available for i.Mx6. The table below gives a quick overview.

[illegible]

COMMUNICATION	UDOO Pin Connector		SAM3X										i.Mx6									
	Bank	Physical pin	Physical pin	Pin Name	Arduino function	Possible functions	GPIO function	Physical pin	Pin Name	Pad Mode										GPIO function		
										ALT0	ALT1	ALT2	ALT3	ALT4	ALT5	ALT6	ALT7					
	J5	1	87	URXD/PA8	SCL	TWCK1 / PWMH1 / AD9	IN/OUT	H20	EIM D21	EIM DATA21	ECSP1A_SCLK	IPU1_D10_PIN17	IPU2_CS11_DATA11	USB_OTG_OC	GPIO3_I021	I2C1_SCL	SPDIF_IN	IN/OUT				
	J5	2	86	UTXD/PA9	SDA	TWD1 / PWMH0 / AD8	IN/OUT	G23	EIM D28	EIM DATA28	I2C1_SDA	ECSP1A_MOSI	IPU2_CS11_DATA12	UART2_CTS_B	GPIO3_I028	IPU1_EXT_TRIG	IPU1_D10_PIN13	IN/OUT				
	J5	3	3	PB25	RX1	RXD0 / DATRG / WKUP5	IN/OUT	L1	CS10_DAT13	IPU1_CS10_DATA13	EIM DATA09		UART4_RX_DATA		GPIO5_I031		ARM_TRACE10	IN/OUT				
	J5	4	PC28	TX1		TXD0 / ADRG / WKUP6	IN/OUT		CS10_DAT12	IPU1_CS10_DATA12	EIM DATA08		UART4_TX_DATA		GPIO5_I030		ARM_TRACE9	IN/OUT				
	J5	5	5	PA29-PC26	RX2	RXD1 / PWM1 / WKUP7	IN/OUT	M5	CS10_DAT15	IPU1_CS10_DATA15	EIM DATA11		UART5_RX_DATA		GPIO6_I001		ARM_TRACE12	IN/OUT				
	J5	6	6	PC25	TX2	TXD1 / PWMH2	IN/OUT	M4	CS10_DAT14	IPU1_CS10_DATA14	EIM DATA10		UART5_TX_DATA		GPIO6_I000		ARM_TRACE11	IN/OUT				
	J5	7	18	PC24	RX3	A15 / RXD3	IN/OUT	L4	CS10_DAT16	IPU1_CS10_DATA16	EIM DATA12		UART4_RTS_B		GPIO6_I002		ARM_TRACE13	IN/OUT				
	J5	9	17	PC73	TX3		IN/OUT		CS10_DAT4	IPU1_CS10_DATA4	EIM DATA02	ECSP1A_SCLK	KEY_C0L6	AIU03_TYC	GPIO5_I022		ARM_TRACE11	IN/OUT				

Bank	UD00 Pin Connector		SAM3X										i.Mx6										GPIO function
	Physical pin	Physical pin	Pin Name	Arduino function	Possible functions	GPIO function	Physical pin	Pin Name	Pad Mode														
									ALT0	ALT1	ALT2	ALT3	ALT4	ALT5	ALT6	ALT7							
J8	1	VCC_SW	PB26	5V															I/O				
J8	2	VCC_SW	PA14	5V															I/O				
J8	3	1	PA15	Pin22	CTS0 / TCLK0 / WKUP15	IN/OUT	R23	DISP0 DAT6	IPU1 DISP0 DATA06	IPU2 DISP0 DATA06	ECSP13 SS3	AUD6 RXC				GPIO4 IO27		I/O					
J8	4	7	PIN23		RTS1 / TX	IN/OUT	R24	DISP0 DAT7	IPU1 DISP0 DATA07	IPU2 DISP0 DATA07	ECSP13 RDY					GPIO4 IO28		I/O					
J8	5	8	PIN24		R22 / TX / WKUP8	IN/OUT	R25	DISP0 DAT8	IPU1 DISP0 DATA08	IPU2 DISP0 DATA08	PWM1 OUT	WDG0G1 B				GPIO4 IO29		I/O					
J8	6	13	PD2	Pin26	A10 / MCD0A4	IN/OUT	T25	DISP0 DAT9	IPU1 DISP0 DATA09	IPU2 DISP0 DATA09	PWM2 OUT	WDG0G2 B				GPIO4 IO30		I/O					
J8	7	14	PD3	Pin26	A11 / MCD0A5	IN/OUT	R21	DISP0 DAT10	IPU1 DISP0 DATA10	IPU2 DISP0 DATA10						GPIO4 IO31		I/O					
J8	8	15	PD6	Pin27	A12 / MCD0A6	IN/OUT	T23	DISP0 DAT11	IPU1 DISP0 DATA11	IPU2 DISP0 DATA11						GPIO5 IO05		I/O					
J8	9	16	PD9	Pin28	A13 / MCD0A7	IN/OUT	T24	DISP0 DAT12	IPU1 DISP0 DATA12	IPU2 DISP0 DATA12						GPIO5 IO06		I/O					
J8	10	19	PA7	Pin29	A16BA0 / PWMF12	IN/OUT	R20	DISP0 DAT13	IPU1 DISP0 DATA13	IPU2 DISP0 DATA13			AUD5 RXFS			GPIO5 IO07		I/O					
J8	11	22	PD10	Pin30	A22/NANDCLE / TCLK8	IN/OUT	U25	DISP0 DAT14	IPU1 DISP0 DATA14	IPU2 DISP0 DATA14			AUD5 RXC			GPIO5 IO08		I/O					
J8	12	26	PC1	Pin31	TCLK2 / NC51 / WKUP3	IN/OUT	T22	DISP0 DAT15	IPU1 DISP0 DATA15	IPU2 DISP0 DATA15	ECSP11 SS1	ECSP12 SS1				GPIO5 IO09		I/O					
J8	13	32	PC2	Pin32	NWR1/NBS1	IN/OUT	T21	DISP0 DAT16	IPU1 DISP0 DATA16	IPU2 DISP0 DATA16	ECSP12 MOSI	AUD5 TXC	SDMA EXT_EVENT0			GPIO5 IO10		I/O					
J8	14	55	PC3	Pin33		IN/OUT	U24	DISP0 DAT17	IPU1 DISP0 DATA17	IPU2 DISP0 DATA17	ECSP12 MISO	AUD5 TXD	SDMA EXT_EVENT1			GPIO5 IO11		I/O					
J8	15	59	PC4	Pin34	D0 / PWM0_L	IN/OUT	V25	DISP0 DAT18	IPU1 DISP0 DATA18	IPU2 DISP0 DATA18	ECSP12 SS0	AUD5 TXFS	AUD4 RXFS			GPIO5 IO12	EIM CS2	I/O					
J8	16	60	PC5	Pin35	D1 / PWM0_H	IN/OUT	U23	DISP0 DAT19	IPU1 DISP0 DATA19	IPU2 DISP0 DATA19	ECSP12 SCLK	AUD5 RXD	AUD4 RXC			GPIO5 IO13	EIM CS3	I/O					
J8	17	116	PC6	Pin36	D2 / PWM1_L	IN/OUT	U22	DISP0 DAT20	IPU1 DISP0 DATA20	IPU2 DISP0 DATA20	ECSP11 SCLK	AUD4 TXC				GPIO5 IO14		I/O					
J8	18	63	PC7	Pin37	D3 / PWM1_H	IN/OUT	T20	DISP0 DAT21	IPU1 DISP0 DATA21	IPU2 DISP0 DATA21	ECSP11 MOSI	AUD4 TXD				GPIO5 IO15		I/O					
J8	19	84	PC8	Pin38	D4 / PWM1_L	IN/OUT	H26	EIM_A16	EIM_ADDR16	IPU1 D11 DISP_CLK	IPU2 CSI_PIXCLK					GPIO2 IO22		I/O					
J8	20	65	PC9	Pin39	D5 / PWM2_H	IN/OUT	P6	GPIO_18	ESAI_TX1	ENET_RX_CLK	SD3_VSELECT	SDMA_EXT_EVENT1				GPIO7 IO13 SNVS_VIO_5_CTL	SR2_BOOT_CFG16	I/O					
J8	21	66	PA19	Pin40	D6 / PWM13	IN/OUT	A18	NANDF_D0	NAND_DATA04	SD1_DATA4						GPIO2 IO00		I/O					
J8	22	67	PA20	Pin41	D7 / PWMH3	IN/OUT	D17	NANDF_D3	NAND_DATA03	SD1_DATA7						GPIO2 IO03		I/O					
J8	23	69	PA21	Pin42	MCKC / PWMH1	IN/OUT	F16	NANDF_D2	NAND_DATA02	SD1_DATA6						GPIO2 IO02		I/O					
J8	24	72	PC18	Pin43	MCCDA / PWM12	IN/OUT	C17	NANDF_D1	NAND_DATA01	SD1_DATA5						GPIO2 IO01		I/O					
J8	25	101	PC17	Pin44	NANDOE / PWMH5	IN/OUT	P5	GPIO_19	KEY_COLS	ENET_1588_EVENT0	MCCDA_TX	SPDIF_OUT	CCM_CLK01	ECSP11 RDY	GPIO4 IO05	ENET_TX_ER		I/O					
J8	26	100	PC16	Pin45	NWR0/NWE / PWMH6	IN/OUT	V24	DISP0 DAT22	IPU1 DISP0 DATA22	IPU2 DISP0 DATA22	ECSP11 MISO	AUD4 TXFS				GPIO5 IO16		I/O					
J8	27	96	PC16	Pin46	D15 / ETXER	IN/OUT	H24	DISP0 DAT23	IPU1 DISP0 DATA23	IPU2 DISP0 DATA23	ECSP11 SS0	AUD4 RXD				GPIO5 IO17		I/O					
J8	28	98	PC14	Pin47	D14 / TX3	IN/OUT	EIM_D25	EIM_DATA25	ECSP14 SS3	UART3_RX_DATA	4ECSP11 SS3	ECSP12 SS3	UART3_RX_DATA	UART5_TX_DATA	GPIO4 IO09	SD2_VSELECT	UART1_DSR_B	I/O					
J8	29	97	PC13	Pin48	D13 / ETX2	IN/OUT	U6	KEY_ROW1	ECSP11 SS0	ENET_COL	AUD5 RXD	KEY_ROW1	UART5_RX_DATA	UART3_TX_DATA	GPIO4 IO08	SD1_VSELECT		I/O					
J8	30	96	PC12	Pin49	D12 / ERXCK	IN/OUT	U7	KEY_COL1	ECSP11 MISO	ENET_MDIO	AUD5 TXFS	KEY_COL1						I/O					
J8	31	95	PB41	Pin50	D11 / ECCL	IN/OUT	J24	EIM_Q0E	EIM_Q0E	IPU1 D11 PIN07	ECSP12 MISO					GPIO2 IO25		I/O					
J8	32	94	PB14	Pin51	D10 / ERX3	IN/OUT	J23	EIM_CS1	EIM_CS1	IPU1 D11 PIN08	ECSP12 MOSI					GPIO2 IO24		I/O					
J8	33	92		Pin52	RX02 / SPI0_NPCS2/AD4HWKUP13	IN/OUT	H24	EIM_CS0	EIM_CS0	IPU1 D11 PIN05	ECSP12 SCLK					GPIO2 IO23		I/O					
J8	34	140	Pin53		CANTX1 / PWMH2	IN/OUT	F22	EIM_D24	EIM_DATA24	ECSP14 SS2	UART3_TX_DATA	ECSP11 SS2	ECSP12 SS2	GPIO3 IO24	AUD5 RXFS	UART1_DTR_B		I/O					
J8	35	GND	GND																I/O				

	UDOO Pin Connector		SAM3X					i.Mx6											
	Bank	Physical pin	Physical pin	Pin Name	Arduino function	Possible functions	GPIO function	Physical pin	Pin Name	ALT0	ALT1	ALT2	Pad Mode		ALT4	ALT5	ALT6	ALT7	GPIO function
POWER	J23	1				NOT USED													
	J23	2	VDD_SNVS			IOREF													
	J23	3		NRSTB		RESET													
	J23	4	VDD_SNVS			3.3V													
	J23	5	VCC_SW			5V													
	J23	6	GND			GND													
	J23	7	GND			GND													
	J23	8	VIN			VIN													
ADCL	J11	1	78	PA16	A0	SPCK1 / TD / AD7	IN/OUT												
	J11	2	79	PA24	A1	MCD A3 / PCK1 / AD6	IN/OUT												
	J11	3	80	PA23	A2	MCD A2 / TCLK4 / AD5	IN/OUT												
	J11	4	81	PA22	A3	MCD A1 / TCLK3 / AD4	IN/OUT												
	J11	5	82	PA6	A4	TI0B2 / NCS0 / AD3	IN/OUT												
	J11	6	83	PA4	A5	TCLK1 / NWAIT / AD2	IN/OUT												
	J11	7	84	PA3	A6	TI0B1 / PWMF11 / AD1WKUP1	IN/OUT												
	J11	8	85	PA2	A7	TI0A1 / NANDRDY / AD0	IN/OUT												
ADCH	J15	1	88	PB17	A8	RF / PWML1 / AD10	IN/OUT												
	J15	2	89	PB18	A9	RD / PWML2 / AD11	IN/OUT												
	J15	3	90	PB19	A10	RK / PWML3 / AD12	IN/OUT												
	J15	4	91	PB20	A11	TXD2 / SPI0_NPCS1 / AD13	IN/OUT												
	J15	5	76	PB15	DAC0	CANRX1 / PWMH3 / DAC0WKUP12	IN/OUT												
	J15	6	77	PB16	DAC1	TCLK5 / PWML0 / DAC1	IN/OUT												
	J15	7	23	PA0	CANRX0 / PWML3	IN/OUT	R3	GPIO 7	ESAI_TX4_RX1	ECSPIS_RDY	EPITZ_OUT		FLEXCAN1_TX	UART2_TX_DATA	GPIO1_I007	SPDIF_LOCK	USB_OTG_HOST_MODE		IN/OUT
	J15	8	24	PA1	CANTX0	CANRX0 / PCK0 / WKUP0	IN/OUT	R5	GPIO 8	ESAI_TX5_RX0	XTALOSC_REF_CLK_32K	EPITZ_OUT		FLEXCAN1_RX	UART2_RX_DATA	GPIO1_I008	SPDIF_SR_CLK	USB_OTG_PWR_CTL_IRQ	