

PIO muxing and jumper settings

PIOA	PERIPHERAL	FUNCTION
PA0	NAND Flash	WE
PA1	NAND Flash	ALE
PA2	NAND Flash	CLE
PA3	NAND Flash	D0
PA4	NAND Flash	D1
PA5	NAND Flash	D4
PA6	NAND Flash	D5
PA7	NAND Flash	D6
PA8	NAND Flash	D7
PA9	NAND Flash	D2
PA10	NAND Flash	D3
PA11	NAND Flash	RDY
PA12	NAND Flash	RE
PA13	NAND Flash	CS
PA14	MIKROBUS 2	SPI CS
PA15	MIKROBUS 1	SPI CS
PA16	MIKROBUS 1	SPI SCK
	MIKROBUS 2	SPI SCK
	RPI 40Pin	SPI SPCK
	GMAC1 SODIMM	SPI SPCK
PA17	MIKROBUS 1	MISO
	MIKROBUS 2	MISO
	RPI 40Pin	MISO
	GMAC1 SODIMM	MISO
PA18	MIKROBUS 1	MOSI
	MIKROBUS 2	MOSI
	RPI 40Pin	MOSI
	GMAC1 SODIMM	MOSI
PA19	RPI 40Pin	NPC50
PA20	RPI 40Pin	NPC51
PA21	GMAC1 SODIMM	NPC5
	RGB LED	BLUE
PA22	MIKROBUS 2	Interrupt
PA23	RPI 40Pin	RXD
PA24	RPI 40Pin	TXD
PA25	GMAC0	TXCTL
PA26	GMAC0	TX0
PA27	GMAC0	TX1
PA28	GMAC0	RXCTL
PA29	GMAC0	RX0
PA30	GMAC0	RX1
PA31	GMAC0	MDC

PIOB	PERIPHERAL	FUNCTION
PB0	GMAC0	MDIO
PB1	GMAC0	TXCK
PB2	GMAC0	RX2
PB3	GMAC0	RXCK
PB4	GMAC0	TX2
PB5	GMAC0	TX3
PB6	GMAC0	RX3
PB7	MIKROBUS 1	INT
PB8	QSPI Flash	IO3
PB9	QSPI Flash	IO2
PB10	QSPI Flash	IO1
PB11	QSPI Flash	IO0
PB12	QSPI Flash	CS
PB13	QSPI Flash	SCK
PB14	MIPI LCD	PWM
	LVDS LCD	PWM
	RGB LED	GREEN
	MIKROBUS 1	PWM
PB15	RPI 40Pin	PWM0
	MIPI LCD	MAXTouch
	LVDS LCD	Interrupt
	RGB LED	RED
PB17	MIKROBUS 2	PWM
	RPI 40Pin	PWM1
PB18	MIPI LCD	ENABLE
	LVDS LCD	
	MCP16502	
	PAC1934	
PB19	E2PROM	
	GMAC1	
	MCP16502	
	PAC1934	
PB20	E2PROM	
	GMAC1	
	MCP16502	
	PAC1934	
PB21	SDMMC1	NRST
PB22	SDMMC1	CMD
PB23	SDMMC1	CK
PB24	SDMMC1	DAT0
PB25	SDMMC1	DAT1
PB26	SDMMC1	DAT2
PB27	SDMMC1	DAT3
PB28	SDMMC1	WP
PB29	SDMMC1	CD
PB30	SDMMC1	1V8SEL
PB31	PAC1934	Interrupt
	RPI 40Pin	GPCLK0
	USBA	CC1

PIOC	PERIPHERAL	FUNCTION
PC0	RPI 40Pin	GPCLK2
	USBA	CC2
PC1	GMAC0	Interrupt
PC2	MCP16502	Interrupt
PC3	RPI 40Pin	GPIO17
PC4	RPI 40Pin	GPIO27
PC5	MIKROBUS 1	AN Input
PC6	LVDS LCD	
	MIPI LCD	
	MIKROBUS 1	
	MIKROBUS 2	
PC7	RPI 40Pin	
	M.2 WiFi	
	LVDS LCD	
	MIPI LCD	
PC8	MIKROBUS 1	
	MIKROBUS 2	
	RPI 40Pin	
	M.2 WiFi	
PC8	MPU USBA	VBUS DET
PC9	MIKROBUS 1/2	NRST
PC10	MPU	USER BTN
PC11	RPI 40Pin	GPIO25
PC12	RPI 40Pin	GPIO24
PC13	MIKROBUS 2	AN Input
PC14	RPI 40Pin	I2S DIN0
PC15	RPI 40Pin	I2S WS
PC16	RPI 40Pin	I2S CK
PC17	RPI 40Pin	I2S DOUT0
PC18	MPU USB	OVCR
PC19	MPU USB	OVCR
PC20	MPU USB	VOU EN
PC21	MPU USB	VOU EN
PC22	MPU JTAG	NRST
PC23	MPU JTAG	TCK
PC24	MPU JTAG	TMS
PC25	MPU JTAG	TDI
PC26	MPU JTAG	TDO
PC27	M.2 SDMMC2	CMD
	M.2 WiFi	SPI MOSI
PC28	M.2 SDMMC2	CK
	M.2 WiFi	SPI MISO
PC29	M.2 SDMMC2	DAT0
	M.2 WiFi	SPI SCK
PC30	M.2 SDMMC2	DAT1
PC31	M.2 SDMMC2	DAT2

PIOD	PERIPHERAL	FUNCTION
PD0	M.2 SDMMC2	DAT2
PD1	M.2 WiFi	Interrupt
	RPI 40Pin	GPIO22
PD2	M.2 WiFi	Interrupt
	RPI 40Pin	GPIO23
PD3	M.2 Bluetooth	RTS
PD4	M.2 WiFi	Wake Host
PD5	M.2 Bluetooth	CTS
PD6	M.2 Bluetooth	RXD
PD7	M.2 Bluetooth	TXD
PD8	MIKROBUS 1	TXD
	CAN0	TXD
PD9	MIKROBUS 1	RXD
	CAN0	RXD
PD10	CAN1	TXD
PD11	CAN1	RXD
PD12	CAN2	TXD
PD13	CAN2	RXD
PD14	CAN3	TXD
PD15	CAN3	RXD
PD16	MIKROBUS 2	TXD
	CAN4	TXD
PD17	MIKROBUS 2	RXD
	CAN4	RXD
PD18	DBGU	TXD
PD19	DBGU	RXD
PD20	M.2 WiFi	RSTN
	RPI 40Pin	GPCLK1
PD21	GMAC1	TXEN
PD22	GMAC1	TX0
PD23	GMAC1	TX1
PD24	GMAC1	RXCTL
PD25	GMAC1	MDC
PD26	GMAC1	MDIO
PD27	GMAC1	RX0
PD28	GMAC1	RX1
PD29	GMAC1	TXCK
PD30	GMAC1	RX2
PD31	GMAC1	RX3

PIOE	PERIPHERAL	FUNCTION
PE0	GMAC1	TX2
PE1	GMAC1	TX3
PE2	GMAC1	RXCK
PE3	GMAC1	Interrupt
PE4	LVDS	D0 N
PE5	LVDS	D0 P
PE6	LVDS	D1 N
PE7	LVDS	D1 P
PE8	LVDS	D2 N
PE9	LVDS	D2 P
PE10	LVDS	D3 N
PE11	LVDS	D3 P
PE12	LVDS	CK N
PE13	LVDS	CK P

PIOBU	PERIPHERAL	FUNCTION
PIOBU0	M.2 WiFi	MPU WAKE
PIOBU1	GMAC1	MPU WAKE
PIOBU2	J32 connector	N/A
PIOBU3	J32 connector	N/A

Header	Function	Default position
J2	Always/PMIC selectable VDD_3V3_B enable	2-3 (Always)
J4	VBAT series jumper	1-2
J6, J7	PAC1934 TWI selection MPU/MCP2221A	1-2 (MCP2221A)
J12	M.2 WiFi Interface select	1-2
J32	CAN1, CAN2, CAN3 Standby	1-2, 3-4, 5-6
J36	NAND Chip Select	1-2
J37	GMAC1 25MHz Clock enable	1-2
J39	QSPI0 Chip Select	1-2

Project Owner: CAV			
PCB Layout Contact: CAV			
PartNumber: 04-12169	Project Title SAMA7D65 Curiosity	Variant: Standard	
Sheet Title PIO Muxing			
Size B	ISCH # 03-01103	Rev: 6	Date: 10/16/2024
File: 01 - PIO muxing.SchDoc		Rev: 4	Sheet 2 of 15
			