

SOPine A64 Pin Mapping V0.02 – No guarantees regarding the accuracy, currency, reliability and correctness of any information supplied within this document!

A64 Pins								Green = on SO connector Yellow = connected internally Red = not connected	SOPine SO-DIMM Module	Baseboard Model A						
A64 Pin	Default State	Default Impedance	Function 2	Function 3	Function 4	Function 5	Function 6	Comment / SOPine default use	SOPine Pin	SOPine Name	Baseboard Name	Baseboard Function	PI2 Header	Euler Header	Ext Header	Connector
Port B																
PB0	DIS	Z	UART2_TX		JTAG_MS0		PB_EINT0	UART2	35	PB0-UART2_TX						
PB1	DIS	Z	UART2_RX		JTAG_CK0	SIM_PWREN	PB_EINT1	UART2	75	PB1-UART2_RX						
PB2	DIS	Z	UART2_RTS		JTAG0_D00	SIM_VPPEN	PB_EINT2		36	PB2						
PB3	DIS	Z	UART2_CTS	I2S0_MCLK	JTAG_D10	SIM_VPPPP	PB_EINT3	I ² S Audio Interface	30	PB3-I2S_MCLK						
PB4	DIS	Z	AIF2_SYNC	PCM0_SYNC			PB_EINT4	I ² S Audio Interface	28	PB4-I2S_SYNC						
PB5	DIS	Z	AIF2_BCLK	PCM0_BCLK			PB_EINT5	I ² S Audio Interface	27	PB5-I2S_BCLK						
PB6	DIS	Z	AIF2_DOUT	PCM0_DOUT			PB_EINT6	I ² S Audio Interface	39	PB6-I2S_DOUT						
PB7	DIS	Z	AIF2_DIN	PCM0_DIN			PB_EINT7	I ² S Audio Interface	29	PB7-I2S_DIN						
PB8	DIS	Z			UART0_TX		PB_EINT8	UART0	34	PB8						
PB9	DIS	Z			UART0_TX		PB_EINT9	UART0	33	PB9						
Port C																
PC0	DIS	Z	NAND_WE		SPI0_MOSI			SOPine SPI Boot Flash	134	PC0-SPIO_MOSI						
PC1	DIS	Z	NAND_ALE	SDC2_DS	SPI0_MISO			SOPine SPI Boot Flash	150	PC1-SPIO_MISO						
PC2	DIS	Z	NAND_CLE		SPI0_CLK			SOPine SPI Boot Flash	142	PC2-SPIO_CLK						
PC3	DIS	Pull-Up	NAND_CE1		SPI0_CS			SOPine SPI Boot Flash	148	PC3-SPIO_CS						
PC4	DIS	Pull-Up	NAND_CE0						135	PC4						
PC5	DIS	Z	NAND_RE	SDC2_CLK				eMMC	25	PC5						
PC6	DIS	Pull-Up	NAND_RB0	SDC2_CMD				eMMC	154	PC6						
PC7	DIS	Pull-Up	NAND_RB1						132	PC7						
PC8	DIS	Z	NAND_DQ0	SDC2_D0				eMMC	130	PC8						
PC9	DIS	Z	NAND_DQ1	SDC2_D1				eMMC	153	PC9						
PC10	DIS	Z	NAND_DQ2	SDC2_D2				eMMC	156	PC10						
PC11	DIS	Z	NAND_DQ3	SDC2_D3				eMMC	165	PC11						
PC12	DIS	Z	NAND_DQ4	SDC2_D4				eMMC	146	PC12						
PC13	DIS	Z	NAND_DQ5	SDC2_D5				eMMC	157	PC13						
PC14	DIS	Z	NAND_DQ6	SDC2_D6				eMMC	155	PC14						
PC15	DIS	Z	NAND_DQ7	SDC2_D7				eMMC	133	PC15						
PC16	DIS	Z	NAND_DQS	SDC2_RST				eMMC	144	PC16						
Port D																
PD0	DIS	Z	LCD_D2	UART3_TX		SPI1_CS	CCIR_CLK	SPI1 or UART3	60	PD0-SPI1_CS						
PD1	DIS	Z	LCD_D3	UART3_RX		SPI1_CLK	CCIR_DE	SPI1 or UART3	49	PD1-SPI1_CLK						
PD2	DIS	Z	LCD_D4	UART4_TX		SPI1_MOSI	CCIR_HSYNC	SPI1 or UART4	57	PD2-SPI1_MOSI						
PD3	DIS	Z	LCD_D5	UART4_RX		SPI1_MISO	CCIR_VSYNC	SPI1 or UART4	61	PD3-SPI1_MISO						
PD4	DIS	Z	LCD_D6	UART4_RTS			CCIR_D0	UART4 RTS	52	PD4-UART4_RTS						
PD5	DIS	Z	LCD_D7	UART4_CTS			CCIR_D1	UART4 CTS	44	PD5-UART4_CTS						
PD6	DIS	Z	LCD_D10				CCIR_D2		45	PD6						
PD7	DIS	Z	LCD_D11				CCIR_D3		40	PD7						
PD8	DIS	Z	LCD_D12		RGMII_RXD3 /RMII_NULL		CCIR_D4	Ethernet	73	GRXD3						
PD9	DIS	Z	LCD_D13		RGMII_RXD2/ RMII_NULL		CCIR_D5	Ethernet	83	GRXD2						
PD10	DIS	Z	LCD_D14		RGMII_RXD1/ RMII_RXD1			Ethernet	51	RMII-RXD1						
PD11	DIS	Z	LCD_D15		RGMII_RXD0/ RMII_RXD0			Ethernet	48	RMII-RXD0						
PD12	DIS	Z	LCD_D18	LVDS_VP0				Ethernet	91	GRXCK						
PD13	DIS	Z	LCD_D19	LVDS_VN0				Ethernet	89	RMII-CRS-DV						
PD14	DIS	Z	LCD_D20	LVDS_VP1				Ethernet	87	RMII-RXER						
PD15	DIS	Z	LCD_D21	LVDS_VN1			CCIR_D6	Ethernet	80	GTXD3						
PD16	DIS	Z	LCD_D22	LVDS_VP2			CCIR_D7	Ethernet	82	GTXD2						
PD17	DIS	Z	LCD_D23	LVDS_VN2				Ethernet	78	RMII-TXD1						
PD18	DIS	Z	LCD_CLK	LVDS_VPC				Ethernet	85	RMII-TXD0						
PD19	DIS	Z	LCD_DE	LVDS_VNC				Ethernet	79	RMII-TXCK						
PD20	DIS	Z	LCD_HSYNC	LVDS_VP3				Ethernet	47	RMII-TXEN						
PD21	DIS	Z	LCD_VSYNC	LVDS_VN3				Ethernet	74	GCLKIN						
PD22	DIS	Z	PWM0				MDC	Ethernet	53	RMII-MDC						
PD23	DIS	Z					MDIO	Ethernet	76	RMII-MDIO						
PD24	DIS	Z						LCD Reset	50	LCD-RST						
Port E																
PE0	DIS	Z	CSI_PCLK		TS_CLK			Camera Interface	58	CSI-PCLK						
PE1	DIS	Z	CSI_MCLK		TS_ERR			Camera Interface	102	CSI-MCLK						
PE2	DIS	Z	CSI_HSYNC		TS_SYNC			Camera Interface	100	CSI-HSYNC						
PE3	DIS	Z	CSI_VSYNC		TS_DVLD			Camera Interface	101	CSI-VSYNC						
PE4	DIS	Z	CSI_D0		TS_D0			Camera Interface	95	CSI-D0						

PE5	DIS	Z	CSI_D1	TS_D1	Camera Interface	54	CSI-D1	
PE6	DIS	Z	CSI_D2	TS_D2	Camera Interface	96	CSI-D2	
PE7	DIS	Z	CSI_D3	TS_D3	Camera Interface	65	CSI-D3	
PE8	DIS	Z	CSI_D4	TS_D4	Camera Interface	105	CSI-D4	
PE9	DIS	Z	CSI_D5	TS_D5	Camera Interface	59	CSI-D5	
PE10	DIS	Z	CSI_D6	TS_D6	Camera Interface	107	CSI-D6	
PE11	DIS	Z	CSI_D7	TS_D7	Camera Interface	111	CSI-D7	
PE12	DIS	Z	CSI_SCK		Camera Interface	98	CSI-SCK	
PE13	DIS	Z	CSI_SDA		Camera Interface	113	CSI-SDA	
PE14	DIS	Z	PLL_LOCK_DBG	TWI2_SCK				
PE15	DIS	Z		TWI2_SDA				
PE16	DIS	Z			Camera Reset	92	CSI-RST-F	
PE17	DIS	Z			Camera Standby	109	CSI-STBY-F	
Port F								
PF0	JTAG_MS	Z	SDC0_D1	JTAG_MS1	SOPine uSD-Card		SD-Card	
PF1	JTAG_DI	Z	SDC0_D0	JTAG_DI1	SOPine uSD-Card		SD-Card	
PF2	DIS	Z	SDC0_CLK	UART0_TX	SOPine uSD-Card		SD-Card	
PF3	JTAG_DO	Z	SDC0_CMD	JTAG_DO1	SOPine uSD-Card		SD-Card	
PF4	DIS	Z	SDC0_D3	UART0_RX	SOPine uSD-Card		SD-Card	
PF5	JTAG_CK	Z	SDC0_D2	JTAG_CK1	SOPine uSD-Card		SD-Card	
PF6	DIS	Z			SOPine uSD-Card		SD-Card	
Port G								
PG0	DIS	Z	SDC1_CLK		SDIO Wifi/BT	72	WL-SDIO-CLK	
PG1	DIS	Z	SDC1_CMD	PG_EINT0	SDIO Wifi/BT	108	WL-SDIO-CMD	
PG2	DIS	Z	SDC1_D0	PG_EINT1	SDIO Wifi/BT	63	WL-SDIO-D0	
PG3	DIS	Z	SDC1_D1	PG_EINT2	SDIO Wifi/BT	110	WL-SDIO-D1	
PG4	DIS	Z	SDC1_D2	PG_EINT3	SDIO Wifi/BT	106	WL-SDIO-D2	
PG5	DIS	Z	SDC1_D3	PG_EINT4	SDIO Wifi/BT	112	WL-SDIO-D3	
PG6	DIS	Z	UART1_TX	PG_EINT5	BT UART	90	BT-UART-RX	
PG7	DIS	Z	UART1_RX	PG_EINT6	BT UART	119	BT-UART-TX	
PG8	DIS	Z	UART1_RTS	PG_EINT7	BT UART	88	BT-UART-CTS	
PG9	DIS	Z	UART1_CTS	PG_EINT8	BT UART	117	BT-UART-RTS	
PG10	DIS	Z	AIF3_SYNC	PCM1_SYNC	BT PCM	99	BT-PCM-SYNC	
PG11	DIS	Z	AIF3_BCLK	PCM1_BCLK	BT PCM	86	BT-PCM-CLK	
PG12	DIS	Z	AIF3_DOUT	PCM1_DOUT	BT PCM	97	BT-PCM-DIN	
PG13	DIS	Z	AIF3_DIN	PCM1_DIN	BT PCM	120	BT-PCM-DOUT	
Port H								
PH0	DIS	Z	TWI0_SCK	PH_EINT0	I ² C0 / TP	43	TWI0-SCK	
PH1	DIS	Z	TWI0_SDA	PH_EINT1	I ² C0 / TP	46	TWI0-SDA	
PH2	DIS	Z	TWI1_SCK	PH_EINT2	I ² C1	62	PH2-TWI1_SCK	
PH3	DIS	Z	TWI1_SDA	PH_EINT3	I ² C1	37	PH3-TWI1_SDA	
PH4	DIS	Z	UART3_TX	PH_EINT4	TP Interrupt	64	CTP-INT	
PH5	DIS	Z	UART3_RX	PH_EINT5		68	PH5	
PH6	DIS	Z	UART3_RTS	PH_EINT6		66	PH6	
PH7	DIS	Z	UART3_CTS	PH_EINT7		71	PH7	
PH8	DIS	Z	OWA_OUT	PH_EINT8	SPDIF Output	38	PH8-OWA_OUT	
PH9	DIS	Z		PH_EINT9		77	PH9	
PH10	DIS	Z	MIC_CLK	PH_EINT10	LCD BL Enable	26	LCD-BL-EN	
PH11	DIS	Z	MIC_DATA	PH_EINT11	TP Reset	67	CTP-RST	
Port L								
PL0	DIS	Pull-Up	S_RSB_SCK	S_PL_EINT0	PMIC (AXP803) RSB Bus			
PL1	DIS	Pull-Up	S_RSB_SDA	S_PL_EINT1	PMIC (AXP803) RSB Bus			
PL2	DIS	Z	S_UART_TX	S_PL_EINT2	Testpad	21	WL-PMU-EN	
PL3	DIS	Z	S_UART_RX	S_PL_EINT3	Testpad	23	WL-WAKE-AP	
PL4	DIS	Z	S_JTAG_MS	S_PL_EINT4		14	BT-RST-N	
PL5	DIS	Z	S_JTAG_CK	S_PL_EINT5		18	BT-WAKE-AP	
PL6	DIS	Z	S_JTAG_DO	S_PL_EINT6		16	AP-WAKE-BT	
PL7	DIS	Z	S_JTAG_DI	S_PL_EINT7		24	PL7	
PL8	DIS	Z	S_TWI_CSK	S_PL_EINT8		15	PL8-S_TWI_SCK	
PL9	DIS	Z	S_TWI_SDA	S_PL_EINT9		17	PL9-S_TWI_SDA	
PL10	DIS	Z	S_PWM	S_PL_EINT10	PWM Output for LCD BL	166	PL10-S_PWM	
PL11	DIS	Z	S_CIR_RX	S_PL_EINT11	IR Receiver Input	13	PL11-IR_RX	
PL12	DIS	Z		S_PL_EINT12				
System								
NMI		OD						
RESET		Z			Reset Input	177	RESET	
TEST		Pull-Down			Bootloader / FEL-Trigger	Testpad		
FEL		Z						
X24MIN								
X24MOUT								
LRADC								
KEYADC					Keypad A/D Input	12	KEYADC	
Debug								
JTAG-SEL0								
JTAG-SEL1								
HDMI								
HCEC					HDMI Display Interface	167	HDMI-CEC	
HHPD					HDMI Display Interface	164	HHPD	
HSDA					HDMI Display Interface	163	HSDA	
HSCL					HDMI Display Interface	161	HSCL	

HTX0N	HDMI Display Interface	138	HTX0N
HTX0P	HDMI Display Interface	136	HTX0P
HTX1N	HDMI Display Interface	145	HTX1N
HTX1P	HDMI Display Interface	143	HTX1P
HTX2N	HDMI Display Interface	139	HTX2N
HTX2P	HDMI Display Interface	141	HTX2P
HTXCN	HDMI Display Interface	149	HTXCN
HTXCP	HDMI Display Interface	151	HTXCP
HVCC			
MIPI DSI			
MDSI-CKN	MIPI Display Interface	129	MIPI-DSI-CKN
MDSI-CKP	MIPI Display Interface	127	MIPI-DSI-CKP
MDSI-D0N	MIPI Display Interface	123	MIPI-DSI-D0N
MDSI-D0P	MIPI Display Interface	121	MIPI-DSI-D0P
MDSI-D1N	MIPI Display Interface	118	MIPI-DSI-D1N
MDSI-D1P	MIPI Display Interface	116	MIPI-DSI-D1P
MDSI-D2N	MIPI Display Interface	128	MIPI-DSI-D2N
MDSI-D2P	MIPI Display Interface	126	MIPI-DSI-D2P
MDSI-D3N	MIPI Display Interface	124	MIPI-DSI-D3N
MDSI-D3P	MIPI Display Interface	122	MIPI-DSI-D3P
VCC-MDSI			
USB			
USB0-DM	USB0	173	USB0-DM
USB0-DP	USB0	171	USB0-DP
USB1-DM	USB1	160	USB1-DM
USB1-DP	USB1	158	USB1-DP
VCC-USB			
HSIC			
HSIC-DAT			
HSIC-STR			
VCC-HSIC			
Audio			
AGND			
AVCC			
CPN			
CPP			
CPVDD			
CPVEE			
VEE			
EAROUTN	Earpiece Audio Output	4	EAROUT_N
EAROUTP	Earpiece Audio Output	2	EAROUT_P
HBIAS	Headphone Audio Output	1	HBIAS
HP-DET	Headphone Audio Output	22	HP-DET
HP-FB	Headphone Audio Output	10	HPOUTFB
HPOUTL	Headphone Audio Output	3	HPOUTL
HPOUTR	Headphone Audio Output	5	HPOUTR
LINEINL			
LINEINR			
LINEOUTN/R			
LINEOUTP/L			
MBIAS			
MIC-DET	Microphone Detect	6	HS-MIC
MICIN1N			
MICIN1P			
MICIN2N	Microphone Input	9	MIC2N
MICIN2P	Microphone Input	11	MIC2P
PHONEINN			
PHONEINP			
PHONEOUTN			
PHONEOUTP			
VRA1			
VRA2			
VRP			
RTC			
RTC-VIO			
X32KIN			
X32KOUT			
X32KFOUT			
VCC-RTC	RTC Backup Battery Input	197	
Other			
VDD-CPUXFB			
VDD-EFUSEBP			
Power			
VCC-IO			
...			
VCC-PLL			
VDD-EFUSE			
VDD-CPUX			
...			

VCC-CPUS
VDD-SYS
GND
...

A64 Pins

