SDP1415 BGA631 0.5mm pitch 23mm x 23mm package (Top-down board view)

	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	Y	AA	AB	AC	AD	AE	AF	AG	AH	
28	VSSI	VSSI	SMC A7		SMC A6	SMC A8		TSB1 CLK	VSSI		ODD D1N	ODD D2N		ODD D4N	EVEN D0N		EVEN CLKN	EVEN D3N		VSSI	COMP1 PB P		COMP1 Y P	PC GRN P		CVBS 1	VSSI	VSSI	28
27	VSSI	SMC A2	SMC A9	SMC A5	SMC A12	SMC A11	SM WAIT	TSB1 DAT1	TSB1 DAT0	TSI0 CLK	ODD D0N	ODD D2P	ODD CLKP	ODD D3P	EVEN D0P	EVEN D1P	EVEN D2P	EVEN D3P	EVEN D4P	TDO	COMP1 PB N	COMP1 PR P	COMP1 Y N		RGB SOG2	CVBS IN	CVBS 2	VSSI	27
26	SMC A0	SMC A4	SMC A3	BS DAT6	SMC A13	SMC A10	OEN	TSB1 VALID	TSB1 DAT3	TSI0 DAT2	ODD D0P	ODD D1P	ODD CLKN	ODD D3N	ODD D4P	EVEN D1N	EVEN D2N	EVEN CLKP	EVEN D4N	TDI	COMP1 PR N	COMP2 PB P	RGB SOG1	PC RED P	FB IN0	CVBS 3	VSSI	VLD OUT SIP AMP	26
25		BS DAT0	BS DAT2		BS DAT4	SMC A14		TSB1 DAT2	TSB1 DAT7		LVDS0 ROUT	VSSI		VSSI	LVDS1 ROUT		SC RST	SC DATA		TMS	VSSI		PC BLUE P	VSSI		VLD IN	AVDD 33A SIP AMP		25
24	CI RST	BS DAT1	BS DAT5	BS DAT7	NIO RD	SMC A1	WEN	CSN1	TSB1 DAT4	TSB1 DAT6	TSI0 DAT1	TSI0 VALID	TSI0 DAT4	TSI0 DAT5	VSSI	SC DET	IF AGC	TCK	SC VCCN	RGB H SYNC	COMP2 PR P	COMP2 Y P	VSSI	CVBS OUT0	O COMP	VSSI	VSSI	ANA OUTL1	24
23	DDR DATA43	DDR DATA40	DDR DATA41	DDR DATA42	VSSI	NIO WR	BS DAT3	CSN0	TSB1 SYNC	TSB1 DAT5	TSI0 DAT3	TSI0 DAT0	TSI0 DAT7	TSI0 DAT6	VSSI	VSNC IN PC	SEC BOOT	SC CLK	VSSI	AVDD 10A LLPLL	LL_L FILT	AVDD 18A CVPLL	VSSI	PG ACML	VREF M	VREF PDA	ANA OUTL2	ANA OUTR1	23
22		DDR DATA44	DDR DM5		DDR DQSP5	DDR DQSN5	VSSI	VSSI	VSSI	VSSI	VSSI	1.8V PW	DVDD 3.3V	VSSI	1.8V PW	1.8V PW	DVDD 3.3V	VSSI	AVDD 18A RGB	AVDD 18A LLPLL	VSSI	AVDD 18A CV	VSSI	VREF PAD		VMID	ANA OUTR2		22
21	DDR DM4	DDR DATA33	DDR DATA32	DDR DATA47	DDR DATA46	DDR DATA45	VDD15 DDR														AVDD 18A DAC	VSSI	ANA INR2	ANA INR1	ANA INL1	MC ADC1 CH2	MC ADC1 CH1	EXT RES	21
20	DDR DQSP4	DDR DQSP4	DDR DATA36	DDR DATA37	DDR DATA34	DDR DATA35	VSSI															AVDD 18 CDEC	VSSI	ANA INL2	MC ADC1 CH0	VSSA PLL CB	LAN RXD-	LAN RXD+	20
19		DDR DATA38	DDR DATA39		DDR DATA24	DDR DM3	VDD15 DDR	VSSI	VDD GPU 1.0V	VSSI	VDD GPU 1.0V		1.1V CORE	VSSI	1.1V CORE	VSSI	FSRC0				VSSI	AVDD 33 SIP LDO	MC I2C SDA	MC GPIO 7		LAN TXD-	LAN TXD+		19
18	DDR DATA28	DDR DATA25	DDR DATA31	DDR DATA26	DDR DATA27	DDR DATA29	VREF DDR	VDD15 DDR	VSSI	VDD GPU 1.0V	VSSI	1.1V CORE	VSSI	1.1V CORE	VSSI	1.1V CORE	VSSI	1.1V CORE	VSSI		AVDD 33 SIP LDO	MC GPIO 8	MC GPIO 13	MC GPIO 17	MC GPIO 20	MC GPIO 6	MC GPIO 5		18
17	DDR DQSN3	DDR DQSP3	DDR DATA30	DDR DATA17	DDR DATA16	VSSI	VDD15 DDR	VSSI	VDD GPU 1.0V	VSSI	VDD GPU 1.0V	VSSI	1.1V CORE	VSSI	1.1V CORE	VSSI	1.1V CORE			VSSI	1.8V PW	MC GPIO 15	MC GPIO 0	MC I2C SCL		MC GPIO 9	MC GPIO 11		17
16		DDR DATA18	DDR DATA19		DDR DM2	DDR DATA23	VREF DDR	VDD15 DDR	VSSI	VDD GPU 1.0V	VSSI	1.1V CORE	VSSI	1.1V CORE	VSSI	1.1V CORE	VSSI			VSSI		MC GPIO 2	MC GPIO 3			CLK24 XO	CLK24 XI		16
15	DDR DQSP2	DDR DQSN2	DDR DATA22	DDR DATA21	DDR DATA20	VSSI	VDD15 DDR	VSSI	VDD GPU 1.0V	VSSI	1.1V CORE	VSSI	1.1V CORE	VSSI	1.1V CORE	VSSI	1.1V CORE			TEST ATP		MC GPIO 12	MC GPIO 16	MC GPIO 1	MC GPIO 4	VSSI		MC SPI MOSI	15
14	DDR DATA8	DDR DATA9	DDR DATA10	DDR DATA11	DDR DM1	DDR DARA13	VREF DDR	VDD15 DDR	VSSI	1.1V CORE	VSSI	VDD CPU 1.0V	VSSI	VDD CPU 1.0V	VSSI	1.1V CORE	VSSI					MC GPIO 14	MC GPIO 10	MC UART1 RXD	MC SPI CLK	CEC OUT		MC IRR	14
13		DDR DQSN1	DDR DQSP1		DDR DQSP0	DDR DATA7	VSSI	VSSI	VDD15 DDR	VSSI	VDD CPU 1.0V	VSSI	VDD CPU 1.0V	VSSI	1.1V CORE	VSSI	VSSA PLL CB				AVDD 18 LDOA	MC GPIO 19	MC UART0 RXD		MC UART1 TXD		MC GPIO 18		13
12	DDR DATA12	DDR DATA15	DDR DATA14	DDR DATA2	DDR DQSN0	VSSI	VDD15 DDR	VDD15 DDR	VSSI	1.1V CORE	VSSI	VDD CPU 1.0V	VSSI	VDD CPU 1.0V	VSSI	VSSI	VSSI				AVDD 18 LDOA	MC SPI CSN	HDMI P2 HPD	MC SPI MISO	SYS RSTN	MC UART0 TXD		HDMI P1 HPD	12
11	DDR DATA0	DDR DATA1	DDR DM0	DDR DATA3	DDR DATA6	DDR ODT	VSSI	VSSI	1.1V CORE	VSSI	VDD CPU 1.0V	VSSI	VDD CPU 1.0V	VSSI						DVDD 3.3V	TEST EN	HDMI P3 5V	HDMI P0 5V	HDMI P3 HPD	HDMI P0 HPD		EDID RSTN		11
10		DDR DATA4	DDR DATA5		DDR RET EN N	DDR CASN	VSSI	1.1V CORE	VSSI	1.1V CORE	VSSI	VDD CPU 1.0V	VSSI	HDMI P0 VDD5	HDMI P1 VDD5	HDMI P2 VDD5	HDMI P3 VDD5			VOUT LDO A	HDMI P1 5V		SDA2		SDA1	SDA0			10
9	DDR CAL	DDR CSN	DDR BANK1	DDR BANK2	DDR RASN	DDR WEN	VDD15 DDR													DVDD 3.3V	HDMI P2 5V		SCL1	SCL2	SCL3	HPDC 10K	HPDC 100K		9
8	DDR BANK0	VSSI	DDR RSTN	DDR CKE	DDR ADDR5	DDR ADDR6	VSSI	DVDD 3.3V											AVDD 18A CH PLL		VSSI	SCL0	TSI5 DATA	TSI4 DATA	TSI5 VALID	SDA3	SCL4		8
7		DDR CLKN0	DDR CLKP0	DDR ADDR4	DDR ADDR7		VSSI	1.8V PW	33/18 eMMC	DVDD 3.3V	DVDD 3.3V	DVDD 3.3V	1.1V CORE	1.1V CORE	VSSI	VSSI	DVDD 3.3V	DVDD 3.3V	VSSI	1.8V PW	VSSI	AVDD 18A CH	SDA4	TSI4 CLK	TSI5 CLK	TSI5 CLK	VSSI		7
6	DDR CLKN1	DDR CLKP1	VSSI	DDR ADDR3	DDR ADDR13	DDR ADDR2	VSSI	EXTI2	EXTI1	DAT1	SS RES REF	UART0 RXD	UART2 TXD	SPDIF ARC TX0	SPDIF TX0	I2S1 BCLK	VSSI	SCL5	SCL7	SCL6	SDA6	B VPP	TSI4 VALID	HSDA	HSCL	VSSI	SIF IN	CH INN	6
5	DDR ADDR0	DDR ADDR1	DDR ADDR15	DDR ADDR14	DDR CSN P1	DDR ODT P1	GPIO 3	EXTI3	DAT0	DAT7	USB2 TUNE	UART1 RXD	UART0 TXD	UART2 RXD	I2S1 SDO1	I2S1 SDO0	I2S1 LRCK	SCL8	SDA7	SDA8	SDA5	VSSI	VSSI	VSSI	VSSI	HDMI P3 D2P	VSSI	CH INP	5
4		DDR ADDR10	DDR ADDR12		GPIO 13	GPIO 4		EXTI0	MOVI CMD	USB1 TUNE	USB1 TUNE	USB3 TUNE		UART1 TXD	VSSI		MHL CD	VSSI		VSSI	VSSI		VSSI	VSSI		HDMI P3 D2N	HDMI P3 D1P		4
3	DDR ADDR8	DDR ADDR11	DDR ADDR9	GPIO 8	GPIO 2	GPIO 5	MOVI DQS	DAT3	DAT2	USB0 TUNE	USB1 DM	USB2 DP	SSTX DM	USB4 TUNE	USB4 DM	VSSI	HDMI P0 CLKP	HDMI P0 D1N	HDMI P0 D2N	HDMI P1 CLKP	HDMI P1 D1N	HDMI P1 D2N	HDMI P1 CLKP	HDMI P2 D1N	HDMI P2 D2N	HDMI P2 CLKP	HDMI P3 CLKP	HDMI P3 D1N	3
2	VSSI	GPIO 6	GPIO 11	GPIO 12	GPIO 7	GPIO 0	MOVI RSTN	DAT4	MOVI CLK	VDD15 DDR	USB0 DP	USB2 DM	SSTX DP	SSRX DM	USB3 DP	USB4 DP	HDMI PRES	HDMI P0 D0P	HDMI P0 D1P	HDMI P1 D2P	HDMI P1 D0P	HDMI P1 D1P	HDMI P1 D2P	HDMI P2 D0P	HDMI P2 D1P	HDMI P2 D2P	HDMI P3 D0N	VSSI	2
1	VSSI	VSSI	GPIO 10		GPIO 9	GPIO 1		DAT5	DAT6		USB0 DM	USB1 DP	SSTX DP	SSRX DP	USB3 DM		HDMI P0 CLKN	HDMI P0 D0N		HDMI P1 CLKN	HDMI P1 D0N		HDMI P2 CLKN	HDMI P2 D0N		HDMI P3 CLKN	VSSI	VSSI	1
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	R	T	U	V	W	Y	AA	AB	AC	AD	AE	AF	AG	AH	