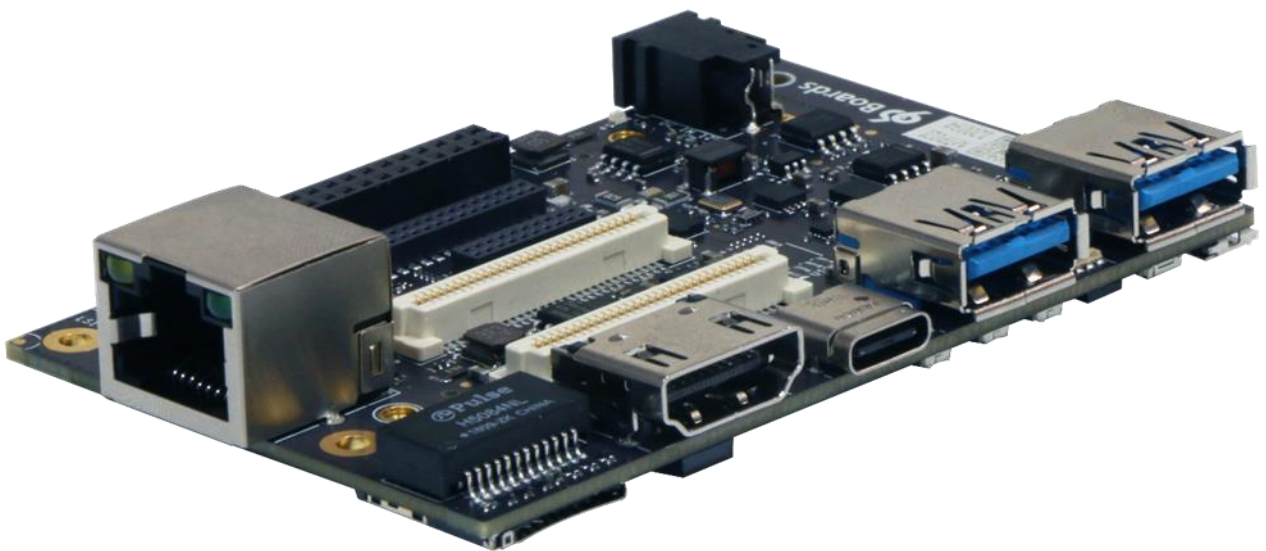


DragonBoard™ 845c

GPIO Pin Assignment Spreadsheet



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1 System I/O

This document provides information on system General Purpose Input/Outputs (GPIOs) for DragonBoard™ 845C development board based on Qualcomm® Snapdragon™ SDA845 processor. Use this document with the DragonBoard 845C schematics.

NOTE: These instructions apply only to DragonBoard™ 845C. For more generic instructions for the chipset, see *Qualcomm® Snapdragon™ 845 processor GPIO Pin Assignment Spreadsheet*(80-p6348-1 a_sdm845_pin_assignment_and_gpio_configuration_spreadsheet).

In the Processor Allocation column, each GPIO is assigned an ownership to a specific processor or sub-system during the preliminary boot sequences. Only the processor or sub-system with access to a specific GPIO may access the registers and modify the state of a GPIO. These assignments apply to Android and Linux operation systems at the time this document was generated. Other operating systems may assign alternate ownership attributes to the various GPIOs.

The GPIO allocations may change with future releases of the operating systems, hence board designers should always test that a GPIO can be accessed by the appropriate sub-system before committing to a final hardware design.

Table 1-1 System GPIOs for DragonBoard 845C

GPIO#	Wake-up function	Pad group	Pad vol	Dft pull	DragonBoard 845c		Processor Allocation
					Description	DragonBoard 845c	
GPIO_0		PX_3	1.8V	PD	QUP0; CAN controller	qup0_10_spi_miso	Apps
GPIO_1	Y	PX_3	1.8V	PD		qup0_11_spi_mosi	Apps
GPIO_2		PX_3	1.8V	PD		qup0_12_spi_clk	Apps
GPIO_3	Y	PX_3	1.8V	PD		qup0_13_spi_cs	Apps
GPIO_4		PX_3	1.8V	PD	LS EXP CONN UART9 (debug)	qup9_12_uart_tx	Apps
GPIO_5	Y	PX_3	1.8V	PD		qup9_13_uart_rx	Apps
GPIO_6		PX_3	1.8V	PD	LS EXP CONN GPIOs	GPIO-H	Apps
GPIO_7		PX_3	1.8V	PD		GPIO-F	Apps
GPIO_8		PX_3	1.8V	PD		GPIO-K (CAM1_RST_N)	Apps
GPIO_9		PX_3	1.8V	PD		GPIO-I (CAM0_RST_N)	Apps
GPIO_10	Y	PX_3	1.8V	PD		GPIO-G	Apps
GPIO_11	Y	PX_3	1.8V	PD		PCIE1_WAKE_N	Apps
GPIO_12		PX_3	1.8V	PD	HS EXP CONN GPIOs	CAM2_RST_N	Apps
GPIO_13		PX_3	1.8V	PD	HS EXP CONN – CAM MCLK	CAM0_MCLK	Apps
GPIO_14		PX_3	1.8V	PD		CAM1_MCLK	Apps
GPIO_15		PX_3	1.8V	PD		CAM2_MCLK	Apps
GPIO_16		PX_3	1.8V	PD		CAM3_MCLK	Apps
GPIO_17		PX_3	1.8V	PD	HS EXP CONN-I2C	CCI_I2C_SDA0	Apps
GPIO_18		PX_3	1.8V	PD		CCI_I2C_SCL0	Apps

GPIO_19		PX_3	1.8V	PD	(CCI)	CCI_I2C_SDA1	Apps
GPIO_20	Y	PX_3	1.8V	PD		CCI_I2C_SCL1	Apps
GPIO_21		PX_3	1.8V	PD	HS EXP CONN GPIOs	CAM3_RST_N	Apps
GPIO_22	Y	PX_3	1.8V	PD		CAM0_STROBE_OUT	Apps
GPIO_23		PX_3	1.8V	PD		GPIO23	Apps
GPIO_24	Y	PX_3	1.8V	PD		CAM2_SLM_IRQ	Apps
GPIO_25		PX_3	1.8V	PD		LAN_RST	Apps
GPIO_26	Y	PX_3	1.8V	PD	LS EXP CONN GPIOs	CAM0_VSYNC_OUT	Apps
GPIO_27		PX_3	1.8V	PD	LS EXP CONN -SPI	qup2_i0_spi_miso	Apps
GPIO_28		PX_3	1.8V	PD		qup2_i1_spi_mosi	Apps
GPIO_29		PX_3	1.8V	PD		qup2_i2_spi_clk	Apps
GPIO_30	Y	PX_3	1.8V	PD		qup2_i3_spi_cs	Apps
GPIO_31	Y	PX_3	1.8V	PD	LS EXP CONN-I2C	I2C1_SDA	Apps
GPIO_32	Y	PX_3	1.8V	PD		I2C1_SCL	Apps
GPIO_33		PX_3	1.8V	PD		I2C0_SDA	Apps
GPIO_34	Y	PX_3	1.8V	PD		I2C0_SCL	Apps
GPIO_35		PX_3	1.8V	PD	PCIe0	PCIE0_RST_N	Apps
GPIO_36	Y	PX_3	1.8V	PD		PCIE0_CLK_REQ	Apps
GPIO_37	Y	PX_3	1.8V	PD		PCIE0_WAKE_N	Apps
GPIO_38	Y	PX_3	1.8V	PD	Usb PHY port select	CC_DIR	Apps
GPIO_39	Y	PX_3	1.8V	PD		NC	Apps
GPIO_40	Y	PX_3	1.8V	PD	LS EXP CONN-GPIO	GPIO-L (CAM1_AFE_GPO)	Apps

GPIO_41	Y	PX_3	1.8V	PD	LS EXP CONN-UART	qup3_10_uart_cts	Apps
GPIO_42		PX_3	1.8V	PD		qup3_11_uart_rts	Apps
GPIO_43	Y	PX_3	1.8V	PD		qup3_12_uart_tx	Apps
GPIO_44	Y	PX_3	1.8V	PD		qup3_13_uart_rx	Apps
GPIO_45		PX_3	1.8V	PD	Bluetooth-UART	BT_UART_RFR_N	Apps
GPIO_46	Y	PX_3	1.8V	PD		BT_UART_CTS_N	Apps
GPIO_47		PX_3	1.8V	PD		BT_UART_RX	Apps
GPIO_48	Y	PX_3	1.8V	PD		BT_UART_TX	Apps
GPIO_49	Y	PX_3	1.8V	PD	LS EXP CONN-GPIOs	GPIO-A (GPIO49_QUP12)	Apps
GPIO_50		PX_3	1.8V	PD		GPIO-C (GPIO50_QUP12)	Apps
GPIO_51		PX_3	1.8V	PD		GPIO-E (GPIO51_QUP12)	Apps
GPIO_52	Y	PX_3	1.8V	PD		GPIO-D (GPIO52_QUP12)	Apps
GPIO_53	Y	PX_3	1.8V	PD	CODEC INT	CODEC_INT2_N	Apps
GPIO_54	Y	PX_3	1.8V	PD		CODEC_INT1_N	Apps
GPIO_55		PX_3	1.8V	PD	HDMI I2C	qup10_10_i2c_sda	Apps
GPIO_56	Y	PX_3	1.8V	PD		qup10_11_i2c_scl	Apps
GPIO_57	Y	PX_3	1.8V	PD	For factory emergency download	FORCE_USB_BOOT	Apps
GPIO_58	Y	PX_3	1.8V	PD	HDMI I2S	QUA_MI2S_SCK	Apps
GPIO_59	Y	PX_3	1.8V	PD		QUA_MI2S_WS	Apps
GPIO_60	Y	PX_3	1.8V	PD		QUA_MI2S_DATA0	Apps
GPIO_61	Y	PX_3	1.8V	PD		QUA_MI2S_DATA1	Apps

GPIO_62	Y	PX_3	1.8V	PD		QUA_MI2S_DATA2	Apps
GPIO_63	Y	PX_3	1.8V	PD		QUA_MI2S_DATA3	Apps
GPIO_64	Y	PX_3	1.8V	PD	CODEC	CODEC_RST_N	Apps
GPIO_65		PX_3	1.8V	PD		CODEC_SPI_MISO	Apps
GPIO_66	Y	PX_3	1.8V	PD		CODEC_SPI_MOSI	Apps
GPIO_67		PX_3	1.8V	PD		CODEC_SPI_CLK	Apps
GPIO_68	Y	PX_3	1.8V	PD		CODEC_SPI_CS	Apps
GPIO_69		PX_3	1.8V	PD		HS EXP CONN-GPIO	CAM2_SLM_EN
GPIO_70		PX_3	1.8V	PD	CODEC SLIMBUS	CODEC_SLIMBUS_ CLK	Apps
GPIO_71	Y	PX_3	1.8V	PD		CODEC_SLIMBUS_ DATA0	Apps
GPIO_72		PX_3	1.8V	PD		CODEC_SLIMBUS_ DATA1	Apps
GPIO_73	Y	PX_3	1.8V	PD	Bluetooth SLIMBUS	BT_FM_SLIMBUS_ DATA	Apps
GPIO_74		PX_3	1.8V	PD		BT_FM_SLIMBUS_ CLK	Apps
GPIO_75		PX_3	1.8V	PD	LS EXP CONN-I2S	TER_MI2S_SCK	Apps
GPIO_76		PX_3	1.8V	PD		TER_MI2S_WS	Apps
GPIO_77	Y	PX_3	1.8V	PD		TER_MI2S_DATA0	Apps
GPIO_78	Y	PX_3	1.8V	PD		TER_MI2S_DATA1	Apps
GPIO_79	Y	PX_3	1.8V	PD	LS EXP CONN-GPIO	GPIO-B	Apps
GPIO_80	Y	PX_3	1.8V	PD	LS EXP CONN-PCM/I2S	PCM_CLK	Apps
GPIO_81		PX_3	1.8V	PD		PCM_FS	Apps
GPIO_82		PX_3	1.8V	PD		PCM_DI	Apps

GPIO_83		PX_3	1.8V	PD		PCM_DO	Apps
GPIO_84	Y	PX_3	1.8V	PD	HDMI IRQ	HDMI_IRQ	Apps
GPIO_85	Y	PX_3	1.8V	PD	LS EXP CONN-GPIO	qup5_10	Apps
GPIO_86	Y	PX_3	1.8V	PD		qup5_11	Apps
GPIO_87		PX_3	1.8V	PD		qup5_12	Apps
GPIO_88	Y	PX_3	1.8V	PD		qup5_13	Apps
GPIO_89	Y	PX_3	1.8V	PD	GPIOs	qup4_10 (HDMI_PWREN)	Apps
GPIO_90		PX_3	1.8V	PD		qup4_11 (PCIE0_PWREN)	Apps
GPIO_91	Y	PX_3	1.8V	PD	HS EXP CONN-SD	SDC4_CMD	Apps
GPIO_92	Y	PX_3	1.8V	PD		SDC4_DATA3	Apps
GPIO_93		PX_3	1.8V	PD		SDC4_CLK	Apps
GPIO_94		PX_3	1.8V	PD		SDC4_DATA2	Apps
GPIO_95	Y	PX_3	1.8V	PD		SDC4_DATA1	Apps
GPIO_96	Y	PX_3	1.8V	PD		SDC4_DATA0	Apps
GPIO_97	Y	PX_3	1.8V	PD		NC	Apps
GPIO_98		PX_3	1.8V	PD		NC	Apps
GPIO_99		PX_3	1.8V	PD		NC	Apps
GPIO_100		PX_3	1.8V	PD		NC	Apps
GPIO_101	Y	PX_3	1.8V	PD		WDOG_DISABLE	Apps
GPIO_102		PX_3	1.8V	PD	HS EXP CONN-PCIE	PCIE1_RST_N	Apps
GPIO_103	Y	PX_3	1.8V	PD		PCIE1_CLK_REQ	Apps
GPIO_104	Y	PX_3	1.8V	PD		CAN_INT	Apps
GPIO_105		PX_6	1.8V	PD		NC	Apps
GPIO_106		PX_6	1.8V	PD		NC	Apps

GPIO_107		PX_6	1.8V	PD		NC	Apps
GPIO_108	Y	PX_3	1.8V	PD		NC	Apps
GPIO_109		PX_6	1.8V	PD		NC	Apps
GPIO_110		PX_6	1.8V	PD		NC	Apps
GPIO_111		PX_6	1.8V	PD		NC	Apps
GPIO_112	Y	PX_3	1.8V	PD		NC	Apps
GPIO_113	Y	PX_3	1.8V	PD		NC	Apps
GPIO_114		PX_3	1.8V	PD		NC	Apps
GPIO_115	Y	PX_3	1.8V	PD		NC	Apps
GPIO_116	Y	PX_3	1.8V	PD	HS EXP CONN-GPIO	CAM3_VSYNC_OUT	Apps
GPIO_117	Y	PX_3	1.8V	PD	LS EXP CONN-SENSOR INT	ACCEL_INT	Apps
GPIO_118	Y	PX_3	1.8V	PD		GYRO_INT	Apps
GPIO_119	Y	PX_3	1.8V	PD		MAG_DRDY_INT	Apps
GPIO_120	Y	PX_3	1.8V	PD	DSI HDMI port select	DSI_SW_SEL	Apps
GPIO_121	Y	PX_3	1.8V	PD	EDP enable	SBU_SW_OE	Apps
GPIO_122	Y	PX_3	1.8V	PD		GPIO_122	Apps
GPIO_123	Y	PX_3	1.8V	PD	LS EXP CONN-SENSOR INT	MAG_INT	Apps
GPIO_124	Y	PX_3	1.8V	PD		PS_INT	Apps
GPIO_125	Y	PX_3	1.8V	PD	EDP port select	SBU_SW_SEL	Apps
GPIO_126	Y	PX_3	1.8V	PD	SD card detect	SD_CARD_DET_N	Apps
GPIO_127	Y	PX_3	1.8V	PD		NC	Apps
GPIO_128	Y	PX_3	1.8V	PD	HDMI reset	HDMI_RST	Apps
GPIO_129	Y	PX_3	1.8V	PD	LAN wake	LAN_WAKE0	Apps
GPIO_130	Y	PX_3	1.8V	PD		NC	Apps

GPIO_131		PX_3	1.8V	PD		NC	Apps
GPIO_132	Y	PX_3	1.8V	PD		NC	Apps
GPIO_133	Y	PX_3	1.8V	PD		NC	Apps
GPIO_134		PX_3	1.8V	PD	PCIe	PCIE0_PONRST	Apps
GPIO_135		PX_3	1.8V	PD		GPIO_135	Apps
GPIO_136		PX_3	1.8V	PD		NC	Apps
GPIO_137		PX_3	1.8V	PD		NC	Apps
GPIO_138		PX_3	1.8V	PD		NC	Apps
GPIO_139		PX_3	1.8V	PD		NC	Apps
GPIO_140		PX_3	1.8V	PD		NC	Apps
GPIO_141		PX_3	1.8V	PD		NC	Apps
GPIO_142		PX_3	1.8V	PD		NC	Apps
GPIO_143		PX_3	1.8V	PD		NC	Apps
GPIO_144		PX_3	1.8V	PD	WLAN coexistence UARTT	WLAN_COEX_UAR T_TXD	Apps
GPIO_145	Y	PX_3	1.8V	PD		WLAN_COEX_UAR T_RXD	Apps
GPIO_146		PX_3	1.8V	PD		NC	Apps
GPIO_147		PX_3	1.8V	PD		NC	Apps
GPIO_148		PX_3	1.8V	PD		NC	Apps
GPIO_149		PX_3	1.8V	PD		NC	Apps
PMI_GPIO_5					LS EXP CONN-PWM	PMI_GPIO5	PMI8998
PMI_GPIO_8						PMI_GPIO8	PMI8998
PM_GPIO_3					Wifi select control	WLAN_SW_CTRL	PM845
PM_GPIO_5					LS EXP CONN-Bluetooth LED	BLUE_BT_LED	PM845

					ON/OFF		
PM_GPIO_6					Vol+ key	VOL_UP_N	PM845
PM_GPIO_8					Adc input	PM_GPIO8	PM845
PM_GPIO_9					LS EXP CONN- wifi LED ON/OFF	YEL_WIFI_LED	PM845
PM_GPIO_10					HS EXP CONN-GPIO	PM_GPIO10	PM845
PM_GPIO_12					HS EXP CONN-GPIO	PM_GPIO12	PM845
PM_GPIO_13					HS EXP CONN- Green LED ON/OFF	GREEN_U4_LED	PM845
PM_GPIO_21					LS EXP CONN- ADC	PM_GPIO21	PM845
PM_GPIO_23					Wifi power enable	WCSS_PWR_REQ	PM845
PM_GPIO_26					PM8005 and PM845 connect	PM845_SLB	PM845