

I/O	Air780EF PIN Name		Pad Name	paddr [7:2]	Powerup default	Alt Func0	Alt Func1	Alt Func2	Alt Func3	Alt Func4	Alt Func5	Alt Func6	Open CPU Ref	Notes
SWD (休眠掉电)	LDO_CTL	97	SWCLK0	11	I&PU	SWCLKA				GPIO16			GPIO16	
	IO_SEL	100	SWDIO0	12	I&PU	SWDIOA				GPIO17			GPIO17	
	I2C_SCL	67	SWCLK1	13	I&PU	SWCLKC		I2C0_SCL	I2C1_SCL	GPIO18	PWM0	KPC_R4	GPIO18	
	I2C_SDA	66	SWDIO1	14	I&PU	SWDIOC		I2C0_SDA	I2C1_SDA	GPIO19	PWM1	KPC_C4	GPIO19	
GPIO (休眠掉电)	USB_BOOT	82	GPIO0	15	I&PD	GPIO0						KPC_R4	GPIO0	boot
	UART1_CTS/AU_OUT	22\5	GPIO1	16	NI&NP	GPIO1		UART1_DCDn	UART1_RTSn	PWM1n	PWM0	KPC_R3	GPIO1	
	UART1_RTS	23	GPIO2	17	NI&NP	GPIO2		UART1_DTRn	UART1_CTSn	ONEW	PWM1	KPC_R2	GPIO2	
	CAM_MCLK	54	GPIO3	18	NI&NP	GPIO3	USP1_MCLK	USP1_WRX		ONEW	PWM2	KPC_C4	USP1_MCLK	CSPI_MCLK
	CAM_SPI_CLK	80	GPIO4	19	NI&NP	GPIO4	USP1_BCLK	I2C1_SDA	UART1_RTSn	USIM1_URSTn		KPC_R1	USP1_BCLK	CSPI_BCLK
	CAM_PWDN	81	GPIO5	20	NI&NP	GPIO5	USP1_LRCK	I2C1_SCL	UART1_CTSn	USIM1_UCLK		KPC_R0	GPIO5	CAM-PD
	CAM_SPI_D0	55	GPIO6	21	NI&NP	GPIO6	USP1_DIN	UART2_RXD	UART1_RTSn	USIM1_UIO		KPC_C3	USP1_DIN	CSPI_RX0
	CAM_SPI_D1	56	GPIO7	22	NI&NP	GPIO7	USP1_DOUT	UART2_TXD	UART1_CTSn	ONEW		KPC_C2	USP1_DOUT	CSPI_RX1
	SPI_CS	83	GPIO8	23	NI&NP	GPIO8	SPI0_SSn0	I2C1_SDA	UART2_RTSn	UART0_RTSn			SPI0_SSn0	Flash
	SPI_MOSI	85	GPIO9	24	NI&NP	GPIO9	SPI0_MOSI	I2C1_SCL	UART2_CTSn	UART0_CTSn			SPI0_MOSI	Flash
	SPI_MISO	84	GPIO10	25	NI&NP	GPIO10	SPI0_MISO		UART2_RXD				SPI0_MISO	Flash
	SPI_SCLK	86	GPIO11	26	NI&NP	GPIO11	SPI0_SCLK	SPI1_SSn1	UART2_TXD				SPI0_SCLK	Flash
	AUX_RXD	28	GPIO12	27	NI&NP	GPIO12	SPI1_SSn0	UART1_RTSn	UART2_RXD	USIM1_UIO	UART3_RTSn	KPC_C1	KPC_C1	KPC-键盘阵列
	AUX_TXD	29	GPIO13	28	NI&NP	GPIO13	SPI1_MOSI	UART1_CTSn	UART2_TXD	USIM1_URSTn	UART3_CTSn	KPC_C0	KPC_C0	KPC-键盘阵列
	CAM_I2C_SDA	58	GPIO14	29	NI&NP	GPIO14	SPI1_MISO	I2C0_SDA	UART3_RXD	USIM1_UCLK	PWM0	KPC_C3	I2C0_SDA	Camera
	CAM_I2C_SCL	57	GPIO15	30	NI&NP	GPIO15	SPI1_SCLK	I2C0_SCL	UART3_TXD	USP2_MCLK	PWM1	KPC_C2	I2C0_SCL	Camera
	DBG_RXD	38	GPIO16	31	NI&NP	GPIO16	UART0_RXD	I2C0_SDA					UART0	Log
	DBG_TXD	39	GPIO17	32	NI&NP	GPIO17	UART0_TXD	I2C0_SCL					UART0	Log
	MAIN_RXD	17	GPIO18	33	NI&NP	GPIO18	UART1_RXD						UART1_RXD	AT / SE
	MAIN_TXD	18	GPIO19	34	NI&NP	GPIO19	UART1_TXD						UART1_TXD	AT / SE
Audio (休眠掉电)	I2S_BCK	30	GPIO29	35	NI&NP	GPIO29	USP0_BCLK				PWM0		GPIO29	Codec / I2S
	I2S_LRCK	31	GPIO30	36	NI&NP	GPIO30	USP0_LRCK				PWM1		GPIO30	Codec / I2S
	I2S_DIN	32	GPIO31	37	NI&NP	GPIO31	USP0_DIN			USP1_MCLK	PWM2		GPIO31	Codec / I2S
	I2S_DOUT	33	GPIO32	38	NI&NP	GPIO32	USP0_DOUT						GPIO32	Codec / I2S
	I2S_MCLK	26	GPIO33	39	NI&NP	GPIO33	USP0_MCLK	USP0_WRX			PWM4		GPIO33	Codec / I2S
LSPI (休眠掉电)	LCD_CLK	53	GPIO34	40	NI&NP	GPIO34	USP2_BCLK	I2C0_SDA	UART3_RXD				USP2_BCLK	LSPI_DCX (CLK)
	LCD_CS	52	GPIO35	41	NI&NP	GPIO35	USP2_LRCK	I2C0_SCL	UART3_TXD				USP2_LRCK	LSPI_CSX
	LCD_RST/UART1_DCD	49\21	GPIO36	42	NI&NP	GPIO36	USP2_DIN	I2C1_SCL	UART0_RTSn				USP2_DIN	
	LCD_DOUT	50	GPIO37	43	NI&NP	GPIO37	USP2_DOUT	I2C1_SDA	UART0_CTSn				USP2_DOUT	LSP_SDA
	LCD_RS	51	GPIO38	44	NI&NP	GPIO38	USP2_MCLK	USP2_WRX					USP2_MCLK	LSP_WRX
AON GPIO (休眠保持)	AGPIOWU0	102	AGPIOWU0	45	NI&NP	GPIO20			PWM4n	FEM7		KPC_C2	KPC_C2	KPC-键盘阵列
	AGPIOWU1	107	AGPIOWU1	46	NI&NP	GPIO21				FEM6	PWM4	KPC_C3	KPC_C3	KPC-键盘阵列
	MAIN_DTR	19	AGPIOWU2	47	NI&NP	GPIO22			PWM4n	FEM5		KPC_C4	GPIO22	
	AGPIO3	99	AGPIO3	48	NI&NP	GPIO23			PWM1n	FEM4	PWM0	KPC_R4	KPC_R4	KPC-键盘阵列
	MAIN_RI	20	AGPIO4	49	NI&NP	GPIO24			PWM0n	FEM3	PWM1	KPC_R3	KPC_R3	KPC-键盘阵列
	AGPIO5	106	AGPIO5	50	NI&NP	GPIO25				FEM2	PWM2	KPC_R2	KPC_R2	KPC-键盘阵列
	STATUS	25	AGPIO6	51	NI&NP	GPIO26			PWM2n	FEM1		KPC_R1	KPC_R1	KPC-键盘阵列
	NET_STATUS	16	AGPIO7	52	NI&NP	GPIO27				FEM0	PWM4	KPC_R0	KPC_R0	KPC-键盘阵列
	LCD_TE	78	AGPIO8	53	NI&NP	GPIO28			PWM4n	ONEW			GPIO28	
AON (休眠保持)	WAKEUP0	101	WAKEUP0			WAKEUP0							WAKEUP0	
	VBUS	61	WAKEUP1			WAKEUP1							WAKEUP1	USB_DET
	USIM_DET	79	WAKEUP2			WAKEUP2							WAKEUP2	USIM_DET
	PWRKEY	7	PWRKEY			PWRKEY							PWRKEY	PWRKEY

\* I&PU: input, pull-up ; I&PD: input, pull-down ; NI&NP: notinput, nopull

注意事项:

- 1 AONGPIO管脚休眠模式下可保持，保持高或低。
- 2 WAKEUP管脚只能作为输入中断，无法设置为输出
- 3 WAKEUP管脚固定电平1.8V，由于内部分压，内部上拉电平测量在1.1V左右
- 4 WAKEUP管脚内部上下拉非常弱，驱动能力<30uA.
- 5 系统休眠后外部只能通过WAKEUP管脚或者LPUART串口唤醒，AONGPIO虽然在休眠下不掉电，但是无法触发中断。
- 6 普通GPIO在休眠后均会处于高阻状态。

所有GPIO和wakeuppad都支持双边沿中断；  
可以复用为wakeup的io，休眠以及唤醒状态下都能使用；  
其余io唤醒状态下可用，休眠状态下不能使用；  
wakeup io可以唤醒休眠，其余GPIO都不可以。