

GPIO ASSIGNMENT

GPIO	FUNC0	FUN1	FUNC2	FUNC3	FUNC4	FUNC5	FUNC6	FUNC8	FUNC9
PA00	I	O	FEM_CTRL1	AUDIO_PWMP	TWI1_SCL	IR_RX	EINTA0	KEY_Y0	PWM5/ECT5
PA01	I	O	FEM_CTRL2	AUDIO_PWMN	TWI1_SDA	FLASH_CS1	EINTA1	KEY_Y1	PWM6/ECT6
PA10/WUPIO0	I	O	ADC_CH0	SPI0_MOSI	/	UART1_RX	EINTA10	KEY_Y2	IR_TX
PA11/WUPIO1	I	O	ADC_CH1	SPI0_MISO	I2S_MCLK	UART1_TX	EINTA11	KEY_Y3	IR_RX
PA12/WUPIO2/LXTAL1	I	O	ADC_CH2	PWM4/ECT4	I2S_BCLK	IR_TX	EINTA12	KEY_Y4	TWIO_SCL
PA13/WUPIO3/LXTAL2	I	O	ADC_CH3	PWM5/ECT5	I2S_DI	UART2_TX	EINTA13	KEY_Y5	TWIO_SDA
PA14/WUPIO4	I	O	ADC_CH4	PWM6/ECT6	I2S_DO	UART2_RX	EINTA14	KEY_Y6	
PA15/WUPIO5	I	O	ADC_CH5	SPI0_CS0	I2S_LRCLK	UART2_CTS	EINTA15	KEY_Y7	TWI1_SCL
PA16/WUPIO6	I	O	ADC_CH6	SPI0_CLK	/	UART2_RTS	EINTA16	KEY_X0	TWI1_SDA
PA17/WUPIO7	I	O	TWIO_SCL	AUDIO_PWMP	32KOSCO	IR_TX	EINTA17	KEY_X1	
PA18/WUPIO8	I	O	TWIO_SDA	AUDIO_PWMN	FEM_CTRL2	FLASH_CS1	EINTA18	KEY_X2	
PA19/WUPIO9	I	O	UART2_RTS	CARD_DATA	PWM0/ECT0	SPI0_MOSI	EINTA19	KEY_X3	AUDIO_PWMP
PA20/WUPIO10	I	O	UART2_CTS	CARD_CLK	PWM1/ECT1	SPI0_MISO	EINTA20	KEY_X4	AUDIO_PWMN
PA21/WUPIO11	I	O	UART2_RX	CARD_RST	PWM2/ECT2	SPI0_CS0	EINTA21	KEY_X5	I2S_DO
PA22/WUPIO12	I	O	UART2_TX	CARD_DETECT	PWM3/ECT3	SPI0_CLK	EINTA22	KEY_X6	I2S_LRCLK
PA23/WUPIO13/TEST	I	O	DCXO_PUP_OUT	IR_RX	FEM_CTRL1	FEM_CTRL2	EINTA23	KEY_X7	I2S_MCLK
PB00	I	O	UART0_TX	JTAG_TMS	/	SWD_TMS	EINTB0	KEY_Y8	
PB01	I	O	UART0_RX	JTAG_TCK	/	SWD_TCK	EINTB1	KEY_Y9	
PB02/strap io	I	O	UART0_CTS	JTAG_TDO	/	FLASH_WP/IO2	EINTB2	KEY_Y10	SWD_TMS
PB03	I	O	UART0_RTS	JTAG_TDI	PWM7/ECT7	FLASH_HOLD/IO3	EINTB3	KEY_Y11	SWD_TCK
PB04	I	O	SPI0_MOSI	PWM0/ECT0	UART1_RTS	FLASH_MOSI/IO0	EINTB4	KEY_Y12	I2S_BCLK
PB05	I	O	SPI0_MISO	PWM1/ECT1	UART1_CTS	FLASH_MISO/IO1	EINTB5	KEY_Y13	I2S_DI
PB06	I	O	SPI0_CS0	PWM2/ECT2	UART1_RX	FLASH_CS0	EINTB6	KEY_Y14	I2S_DO
PB07	I	O	SPI0_CLK	PWM3/ECT3	UART1_TX	FLASH_CLK	EINTB7	KEY_Y15	I2S_LRCLK

XR806BF2L/BF2E

Input: 2.6V~5.5V
600mA max

VCC-BAT

VBAT PS

Input: 3.3V/1.8V
100mA max

VDDIO

PS:300mA min

IO

PA0	PA18
PA1	PA19
PA10	PA20
PA11	PA21
PA12	PA22
PA13	PB0
PA14	PB1
PA15	PB3
PA16	PB14
PA17	PB15

1. 可以用作产测高速烧录接口,
2. 尽量留出测试点或测试端口以方便功能测试

PB4
PB5
PB6
PB7

复位信号 (CHIP-PWD) 释放后, 当PB2为低电平时, 系统进入固件烧写模式。

PB2

默认 (芯片启动时) 不能高电平。

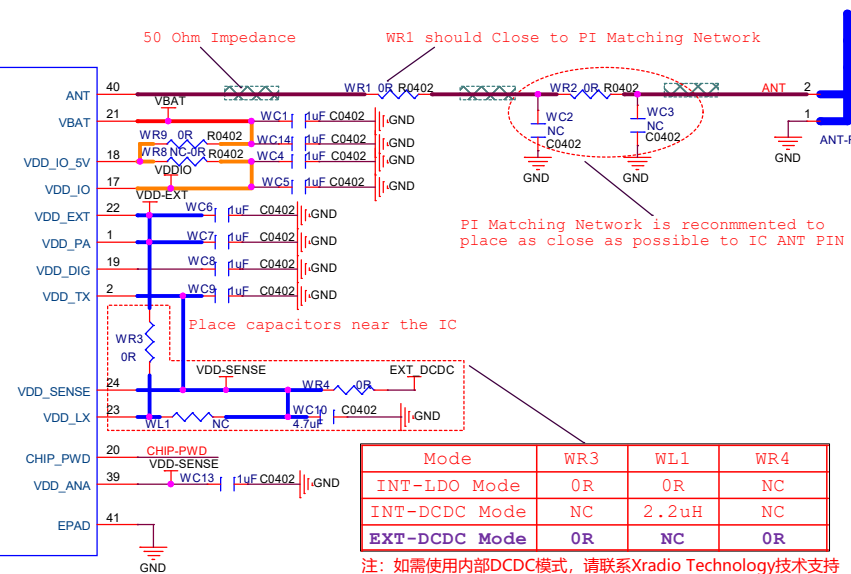
PA23

如不需要用 CHIP-PWD, 则把
CHIP-PWD 上拉至 VBAT。

CHIP-PWD

PA0	32	PA00/FEM_CTRL1/AUDIO_PWM/PWM1_SCL/IR_RX/EINTA0/KEY_Y0/PWM5/ECT5
PA1	31	PA01/FEM_CTRL2/AUDIO_PWM/PWM2_SCL/IR_RX/EINTA1/KEY_Y1/PWM6/ECT6
PA10	3	PA10/WUPI0/ADC_CH0/SPI0_MOSI/UART1_RX/EINTA10/KEY_Y2/IR_TX
PA11	4	PA11/WUPI0/ADC_CH1/SPI0_MISO/I2S_MCLK/UART1_TX/EINTA11/KEY_Y3/IR_RX
PA12	LXTAL1	PA12/XTAL1/WUPI0/ADC_CH2/PWM4/ECT4/I2S_BCLK/IR_TX/EINTA12/KEY_Y4/TWI0_SCL/LXTAL1
PA13	LXTAL2	PA13/XTAL2/WUPI0/ADC_CH3/PWM5/ECT5/I2S_DQ/UART2_TX/EINTA13/KEY_Y5/TWI0_SDA/LXTAL2
PA14	7	PA14/WUPI0/ADC_CH4/PWM6/ECT6/I2S_DO/UART2_TX/EINTA14/KEY_Y6
PA15	8	PA15/WUPI0/ADC_CH5/SPI0_CS0/I2S_LRCLK/UART2_CTS/EINTA15/KEY_Y7/TWI1_SCL
PA16	9	PA16/WUPI0/ADC_CH6/SPI0_CLK/UART2_RTS/EINTA16/KEY_X0/TWI1_SDA
PA17	10	PA17/WUPI0/TWI0_SCL/AUDIO_PWM/P32KOSC/IR_TX/EINTA17/KEY_X1
PA18	11	PA18/WUPI0/TWI0_SDA/AUDIO_PWM/FEM_CTRL2/FLASH_CS1/EINTA18/KEY_X2
PA19	12	PA19/WUPI0/UART2_RTS/CARD_DATA/PWM0/ECT0/SPI0_MOSI/EINTA19/KEY_X3/AUDIO_PWM
PA20	13	PA20/WUPI0/UART2_CTS/CARD_CLK/PWM1/ECT1/SPI0_MISO/EINTA20/KEY_X4/AUDIO_PWM
PA21	14	PA21/WUPI0/UART2_TX/CARD_RST/PWM2/ECT2/SPI0_CS0/EINTA21/KEY_X5/I2S_DO
PA22	15	PA22/WUPI0/UART2_TX/CARD_DETECT/PWM3/ECT3/SPI0_CLK/EINTA22/KEY_X6/I2S_LRCLK
PA23	16	PA23/WUPI0/TEST/DCXO_PUP_OUT/IR_RX/FEM_CTRL1/FEM_CTRL2/EINTA23/KEY_X7/I2S_MCLK
PB0	36	PB00/UART0_TX/JTAG_TMS/SWD_TMS/EINTB0/KEY_Y8
PB1	35	PB01/UART0_RX/JTAG_TCK/SWD_TCK/EINTB1/KEY_Y9
PB2	30	PB02/UART0_CTS/JTAG_TDO/FLASH_WPI02/EINTB2/KEY_Y10/SWD_TMS
PB3	29	PB03/UART0_RTS/JTAG_TDI/PWM7/ECT7/FLASH_HOLD/I03/EINTB3/KEY_Y11/SWD_TCK
PB4	27	PB04/SPI0_MOSI/PWM0/ECT0/UART1_RTS/FLASH_MOSI/I00/EINTB4/KEY_Y12/I2S_BCLK
PB5	26	PB05/SPI0_MISO/PWM1/ECT1/UART1_CTS/FLASH_MISO/I01/EINTB5/KEY_Y13/I2S_DI
PB6	25	PB06/SPI0_CS0/PWM2/ECT2/UART1_RX/FLASH_CS0/EINTB6/KEY_Y14/I2S_DO
PB7	28	PB07/SPI0_CLK/PWM3/ECT3/UART1_TX/FLASH_CLK/EINTB7/KEY_Y15/I2S_LRCLK
PB14	34	PB14/UART1_TX/UART2_TX/TWI1_SCL/UART0_CTS/EINTB14/KEY_Y0/PWM5/ECT5
PB15	33	PB15/UART1_RX/UART2_RX/TWI1_SDA/UART0_RTS/EINTB15/KEY_Y1/PWM6/ECT6
HXTAL1	37	HXTAL1
HXTAL2	38	HXTAL2

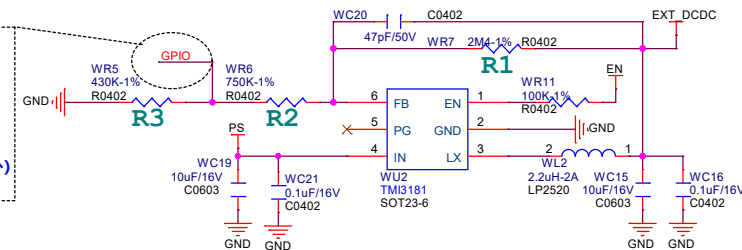
XR806BF2L/XR806BF2E



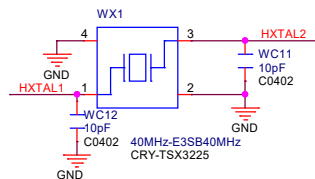
External DCDC-TM13181(Optional)

1. 外置DCDC将支持1.8V与2.5V电压输出, 2.5V电压 (2.25V~2.75V) 用以支持efuse烧写功能。
2. 示例为使用XR806AF2L的PA11管脚控制外置DCDC输出电压 (PA11可替换为其他GPIO, PB2、PA23除外)

GPIO 高阻态: $V_{out1} = 0.6 * (1 + R1 / (R2 + R3)) \approx 1.820V$
GPIO 低电平: $V_{out2} = 0.6 * (1 + R1 / R2) \approx 2.520V$
此GPIO (PA11) 不可为高电平!!!

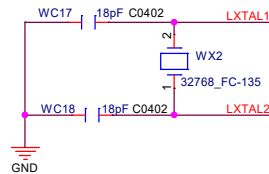


Clock



1. 产测校准: 如果支持产测校准, 则WC11和WC12为NC; 否则, WC11、WC12和晶振配套使用。
2. 频率选择: 高频晶振推荐使用40M晶振, 当使用24M或者26M晶振时, TX EVM会差1dB左右。
3. 必须预留电容位, 高频晶振使用无源晶振时可以通过调整内部电容+外部电容使频率误差达到要求。
4. 内部调节频偏需要考虑晶振的高低温一致性。

LOSC(Optional)



1. XR806BF2L低频晶振频率为32.768KHz, 支持有源晶振和无源晶振。
2. XR806BF2L的PA12和PA13管脚可复用做外部低频时钟信号管脚, 在诸如低功耗保活等场景下可考虑使用该部分应用电路。
3. 低频晶振使用无源晶振时可以通过调整外部电容使频率误差缩小

Output: 3.3V
600mA max

25mil
20mil
15mil

XRAD TECH 芯之联		
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