



EFR32FG13 Dual Band Radio Board
2.4 GHz / 868 MHz 10 dBm, VDCDC to PAVDD


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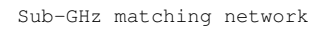


Revision History	
Rev.	Description
A00	Initial revision.

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 SILICON LABS		Schematic Title	
		EFR32FG13 Dual Band 2400/868 MHz Radio Bo	
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PCB Antenna



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The diagram illustrates the EFR32 Pin Mapping, showing connections between various pins and internal components. The pins are organized into groups: RADIO_PA[5..0], RADIO_PB[15..11], RADIO_PC[11..6], RADIO_PD[15..13], and RADIO_PF[7..0]. The connections are as follows:

- RADIO_PA[5..0]:**
 - RADIO_PA0: US0_TX#0, EXP_HEADER12, WSTK_P9, WSTK_P9, VCOM_TX_MOSI, WSTK_F6, WSTK_F6, TP_VCOM_TX_MOSI
 - RADIO_PA1: US0_RX#0, EXP_HEADER14, WSTK_P11, WSTK_P11, VCOM_RX_MISO, WSTK_F7, WSTK_F7, TP_VCOM_RX_MISO
 - RADIO_PA2: US0_CLK#0, EXP_HEADER3, WSTK_P0, WSTK_P0, VCOM_CTS_SCLK, WSTK_F8, WSTK_F8, TP_VCOM_CTS_SCLK
 - RADIO_PA3: US0_CS#0, EXP_HEADERS, WSTK_P2, WSTK_P2, VCOM_RTS_CS, WSTK_F9, WSTK_F9, TP_VCOM_RTS_CS
 - RADIO_PA4: US1_CS#1, WSTK_P14, WSTK_P14, VCOM_ENABLE, WSTK_F5, WSTK_F5, TP_VCOM_RTS_CS
 - RADIO_PA5: FLASH_SCS, WSTK_P16, WSTK_P16, VCOM_ENABLE, WSTK_F5, WSTK_F5, TP_VCOM_RTS_CS
- RADIO_PB[15..11]:**
 - RADIO_PB11: FRC_DCLK#6, WSTK_P18, WSTK_P18, PTL_CLK, WSTK_F21, WSTK_F21, TP_VCOM_TX_MOSI
 - RADIO_PB12: FRC_DOUT#6, WSTK_P20, WSTK_P20, PTL_DATA, WSTK_F20, WSTK_F20, TP_VCOM_RX_MISO
 - RADIO_PB13: FRC_DFRAME#6, WSTK_P22, WSTK_P22, PTL_SYNC, WSTK_F19, WSTK_F19, TP_VCOM_CTS_SCLK
 - RADIO_PB14: LFXTAL_P, LFXTAL_N
 - RADIO_PB15: LFXTAL_P, LFXTAL_N
- RADIO_PC[11..6]:**
 - RADIO_PC6: US1_TX#11, FLASH_MOSI, FLASH_MISO, FLASH_SCLK
 - RADIO_PC7: US1_RX#11, FLASH_MOSI, FLASH_MISO, FLASH_SCLK
 - RADIO_PC8: US1_CLK#11, FLASH_MOSI, FLASH_MISO, FLASH_SCLK
 - RADIO_PC9: US1_CS#11, EXP_HEADER10, WSTK_P7, WSTK_P7, DISP_SI, WSTK_F16, WSTK_F16, TP_VCOM_TX_MOSI
 - RADIO_PC10: I2C0_SCL#14, EXP_HEADER15, WSTK_P12, WSTK_P12, DISP_SCLK, WSTK_F15, WSTK_F15, TP_VCOM_RX_MISO
 - RADIO_PC11: I2C0_SDA#16, EXP_HEADER16, WSTK_P13, WSTK_P13, DISP_SCLK, WSTK_F15, WSTK_F15, TP_VCOM_CTS_SCLK
- RADIO_PD[15..13]:**
 - RADIO_PD13: LETIM0_OUT0#23, WSTK_P31, WSTK_P31, DISP_EXTCOMIN, WSTK_F18, WSTK_F18, TP_VCOM_TX_MOSI
 - RADIO_PD14: US1_CS#19, WSTK_P33, WSTK_P33, DISP_SCS, WSTK_F17, WSTK_F17, TP_VCOM_RX_MISO
 - RADIO_PD15: WSTK_P35, WSTK_P35, DISP_ENABLE, WSTK_F14, WSTK_F14, TP_VCOM_CTS_SCLK
- RADIO_PF[7..0]:**
 - RADIO_PF0: DBG_SWCLK#0, WSTK_P24, WSTK_P24, DEBUG_TCK_SWCLK, WSTK_F1, WSTK_F1, TP_DEBUG_TCK_SWCLK
 - RADIO_PF1: DBG_SWDIOTMS#0, WSTK_P26, WSTK_P26, DEBUG_TMS_SWCLK, WSTK_F0, WSTK_F0, TP_DEBUG_TMS_SWCLK
 - RADIO_PF2: DBG_SWO#0/DBG_TDO#0, WSTK_P28, WSTK_P28, DEBUG_TDO_SWO, WSTK_F2, WSTK_F2, TP_DEBUG_TDO_SWO
 - RADIO_PF3: DBG_TDI#0, EXP_HEADER13, WSTK_P8, WSTK_P8, UIF_LED0, WSTK_F10, WSTK_F10, TP_DEBUG_TDI
 - RADIO_PF4: EXP_HEADER11, WSTK_P8, WSTK_P8, UIF_LED0, WSTK_F10, WSTK_F10, TP_DEBUG_TDI
 - RADIO_PF5: WSTK_P32, WSTK_P32, UIF_LED1, WSTK_F11, WSTK_F11, TP_DEBUG_TDI
 - RADIO_PF6: EXP_HEADER7, WSTK_P4, WSTK_P4, UIF_BUTTON0, WSTK_F12, WSTK_F12, TP_DEBUG_TDI
 - RADIO_PF7: EXP_HEADER9, WSTK_P6, WSTK_P6, UIF_BUTTON1, WSTK_F13, WSTK_F13, TP_DEBUG_TDI

The diagram also shows connections to the VMCU, R206, R205, R203, R204, and C207, and a GND connection.

2 1

EFR32 I/O Port Pins

U1A
EFR32FG13P233F512GM48

RADIO_PA[5..0] <<< PA0 / PA1 / PA2 / PA3 / PA4 / PA5 /

RADIO_PB[15..11] <<< PB11 / PB12 / PB13 / PB14 / LFXLTAL_N PB15 / LFXLTAL_P

RADIO_PC[11..6] <<< PC6 / PC7 / PC8 / PC9 / PC10 / PC11 /

RADIO_PD[15..13] <<< PD13 PD14 PD15

RADIO_PF[7..0] <<< PF0 / PF1 / PF2 / PF3 / PF4 / PF5 / PF6 / PF7 /

Serial Flash


U100A
SI / SIO0 SO / SIO1
SCLK
CS#
WP# / SIO2
RESET# / SIO3
MX25R8035F

U100B
VCC
GND
MX25R8035F

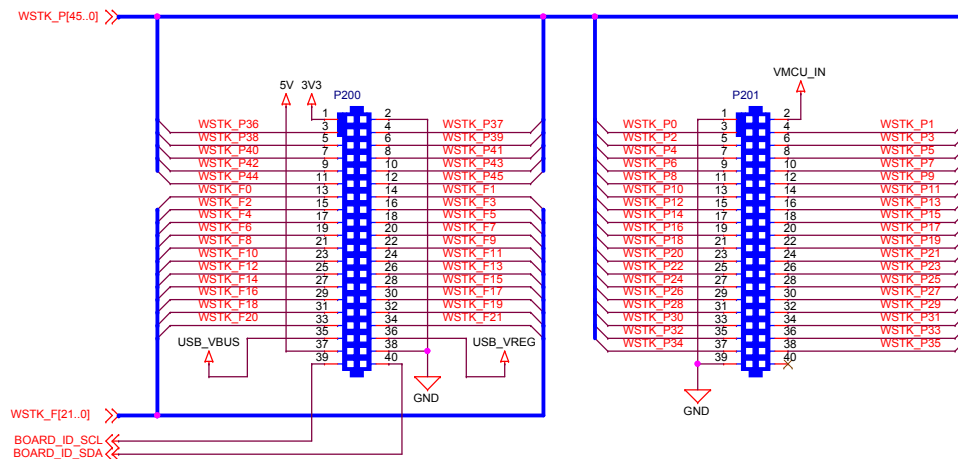
FLASH_MOSI >>> D2
FLASH_SCLK >>> E1
FLASH_SCS >>> A3
FLASH_SCS >>> E3
FLASH_SCS >>> C1

VMCU
R103
330K
VMCU
C124
100N
GND

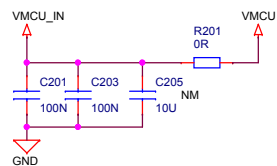
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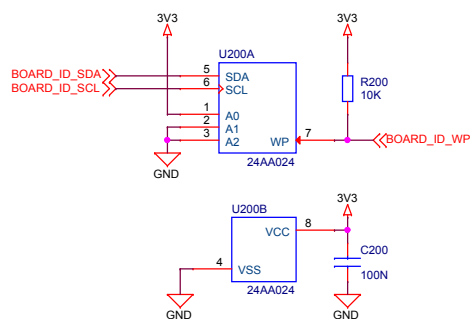
WSTK Connectors



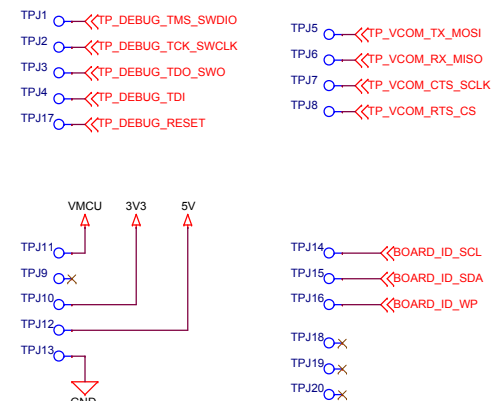
WSTK Power Decoupling




Board Identification



Test Points



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