



EFR32MG12 Dual Band Radio Board
2.4 GHz / 434 MHz 10 dBm, VDCDC to PAVDD

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Revision History	
Rev.	Description
A00	Initial revision.

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Schematic Title

EFR32MG12 Dual Band 2400/434 MHz Radio Board

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Title Page

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BRD4173A

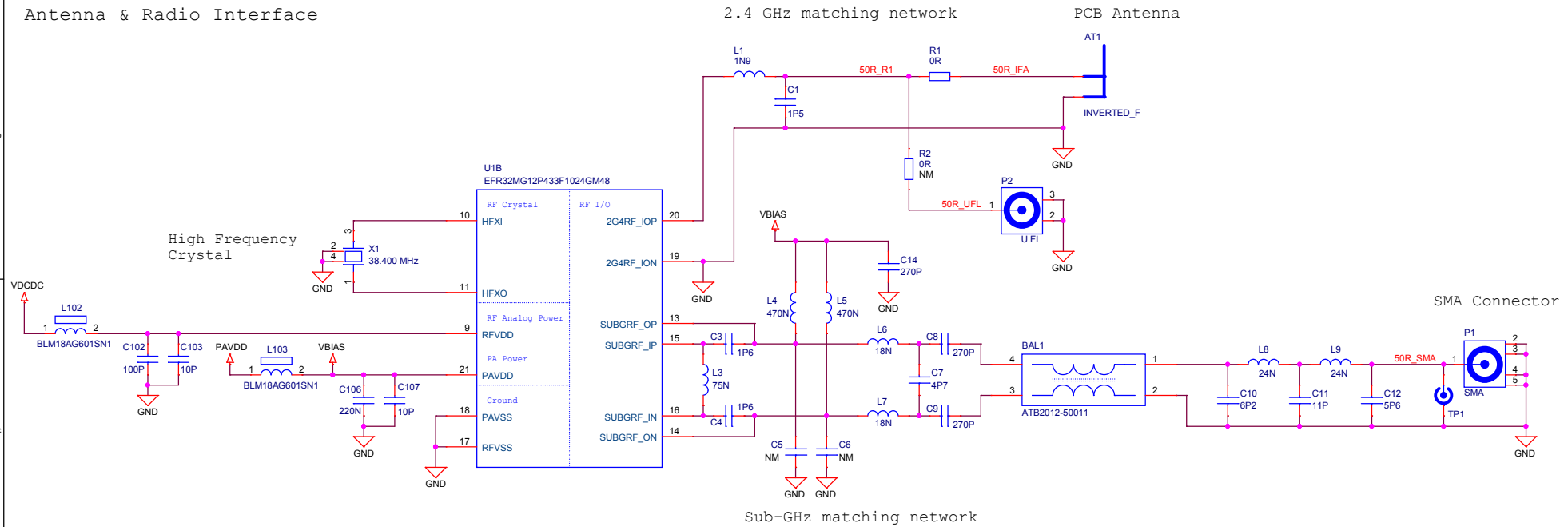
Revision

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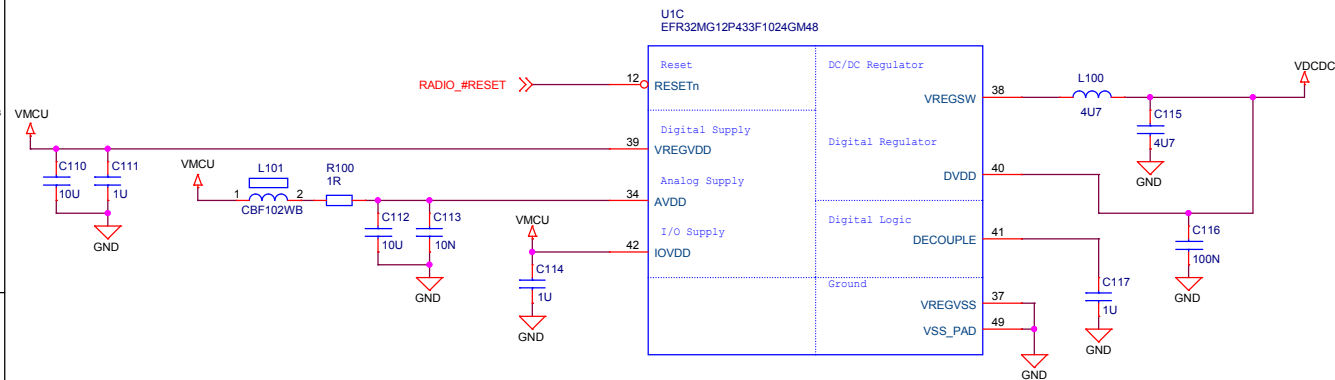
Sheet

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Antenna & Radio Interface

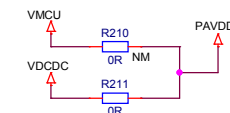


Power & Decoupling

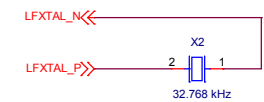


PAVDD Configuration

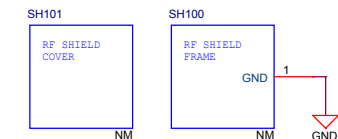
	Power Config 1 VMCU to PAVDD	Power Config DCDC to PAVDD
R210	Mount	Not mount
R211	Not mount	Mount



Low Frequency Crystal



RF Shielding



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RF, Antenna and Power

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Pin Mapping

RADIO_PA[5..0] (EFR32 Pin) connects to EFR32 Peripheral (US0_TX#0, US0_RX#0, US0_CLK#0, US0_CS#0, US1_CS#1) and EXP Header Connection (EXP_HEADER12, EXP_HEADER14, EXP_HEADER3, EXP_HEADERS, EXP_HEADERS).

RADIO_PB[15..11] connects to FRC_DCLK#6, FRC_DOUT#6, FRC_DFRAME#6, and LFXTAL_P/LFXTAL_N.

RADIO_PC[11..6] connects to US1_TX#11, US1_RX#11, US1_CLK#11, and US1_CS#11. It also connects to an RP200 (100R) and EXP_HEADERS (EXP_HEADER6, EXP_HEADER4, EXP_HEADERS).

RADIO_PD[15..13] connects to US1_CS#11, I2C0_SCL#14, and I2C0_SDA#16. It also connects to VMCU and R203, R204, R205, and R206.

RADIO_PF[7..0] connects to DBG_SWCLK#0, DBG_SWDIO#0, DBG_SWDIO#0, DBG_TDO#0, and DBG_TDI#0. It also connects to EXP_HEADERS (EXP_HEADER13, EXP_HEADERS, EXP_HEADERS, EXP_HEADERS, EXP_HEADERS).

WSTK Breakout Pin connections include WSTK_P9 through WSTK_P37.

WSTK Peripheral Connection connections include WSTK_F6 through WSTK_F13.

TP_VCOM_TX, TP_VCOM_RX, TP_VCOM_CTS, TP_VCOM_RTS connections are shown for WSTK_F6 through WSTK_F9.

TP_DBG_TCK_SWCLK, TP_DBG_TMS_SWDIO, TP_DBG_TDO_SWO, TP_DBG_TDI connections are shown for WSTK_F1 through WSTK_F3.

TP_DBG_RESET connection is shown for WSTK_F4.

Serial resistors on SPI interface to mitigate any signal integrity issues that might arise when an unknown load is connected to the expansion header.

VMCU pin connections are shown for R203, R204, R205, and R206.

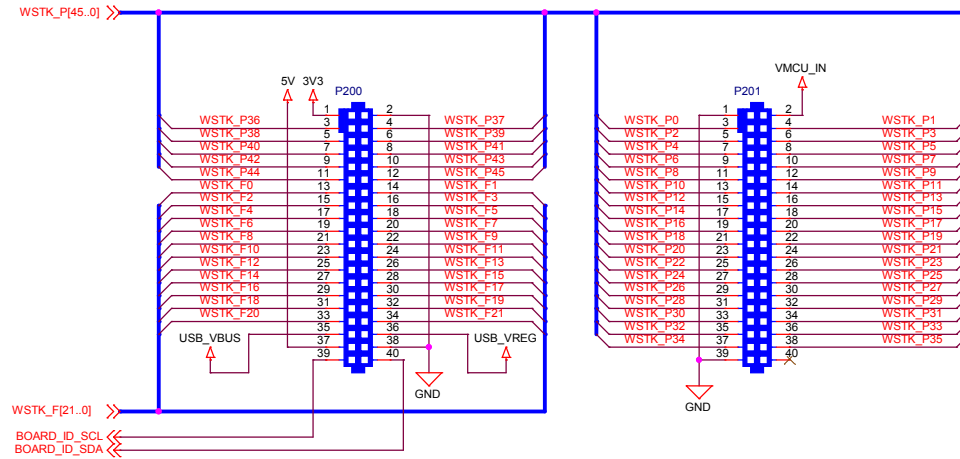
I/O Port Pins

Serial Flash

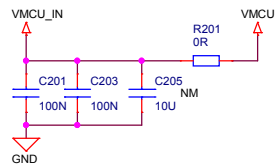
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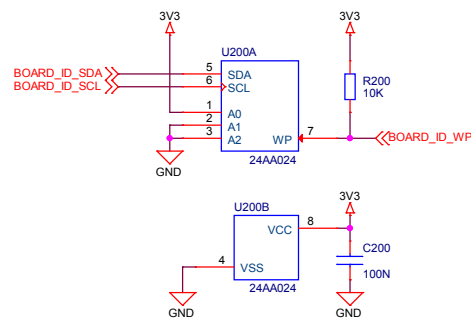
WSTK Connectors



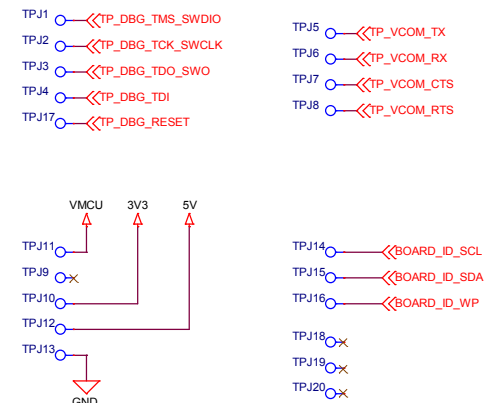
WSTK Power Decoupling



Board Identification



Test Points



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