

Mcu, Power and Clocks

The heart and soul of this transceiver is the STM32F4 microcontroller. It does all the control and DSP processing, implements the User Interface driver and provides all the functionality. It requires single 3V power supply and stable, 16 Mhz clock. The FOX924B TCXO provides that, where as option, simple quartz crystal could be used as well, if frequency stability is not required.

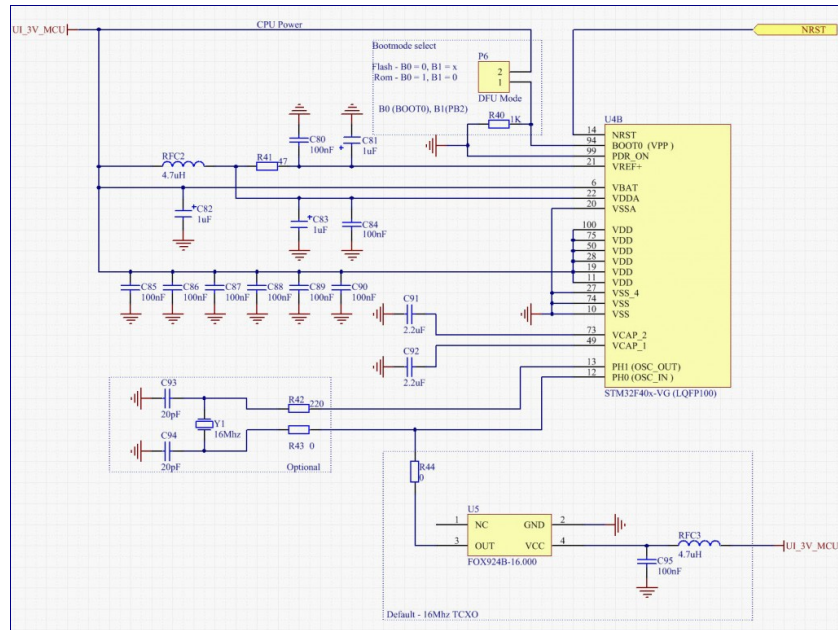


Fig1: Mcu and power schematics(click for larger view)

The CPU core can boot from three main sources based on pin configuration – SRAM, FLASH or BOOTROM. Booting from built in ROM is used for first time programming, it requires holding of the BAND+ button(PB2) and the P6 jumper shorted. Normal operation is provided via R40 to GND.