

1. FEATURES

- AEC-Q100 qualified for automotive applications:
 - Temperature grade 1
 - HBM ESD classification level H2
 - CDM ESD classification level C3
- Compliant with the latest WPC Qi (V1.3) specification and supports various proprietary protocols
- Up to 15W power delivery
- 32 bits ARM-M0 with 4KB SRAM and 32KB MTP
- 4V to 20V Wide input VIN voltage
- Supports 6-channel DMA
- Supports 8-channel voltage and current ASK demodulation
- PLL with programmable VCO frequency and output divider
- Supports 12MHz~24MHz XTAL
- 48MHz oscillator with $\pm 1.5\%$ accuracy
- 12 bits 100ksps SAR ADC
- Supports SWD and I²C debug mode
- Supports QC, FCP, SCP, UFCS and USB PD
- 2 UART interfaces
- 3 advanced timers with PWM generation and capture function
- 1 basic timer with 2 channels
- Integrates high side current sense circuit
- Voltage/current demodulation flexible configuration
- Q-value detection
- Floating point $\ln(x)$ operation hardware acceleration support
- Supports CRC hardware
- Embedded with hardware UVLO/OCP
- Supports low power mode and ultra-low power mode
- Halogen free and RoHS compliant
- Available in FCQFN24L (3mm×4mm) package

2. APPLICATIONS

- WPC compliant wireless power transmitters for smart phones and wearable devices
- Medical, home appliance and industrial applications
- Other wireless power applications

3. TYPICAL APPLICATION CIRCUIT

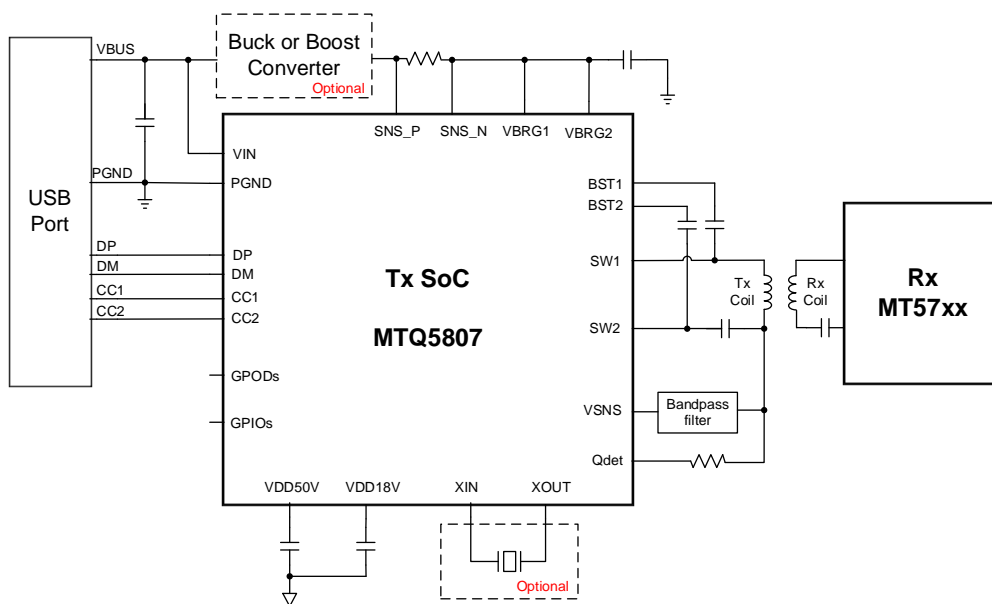


Figure 1 Typical Application Circuit