MAXIC
Maximizing IC Performance

1. FEATURES

- Compliant with the latest WPC Qi (V2.1) specification and supports various proprietary protocols
- Up to 80W power delivery
- ARM-M0 with 16kB SRAM, 32kB ROM and 64kB MTP
- 4V to 24V wide input VIN voltage
- Supports 6-channel DMA
- Integrates three pairs of N-MOSFET drivers
- Integrates 3.3V LDO for internal and I/O power supplies
- Integrates 1.5V LDO for core power supply
- Supports 16-channel ASK and PSK demodulation including voltage and current mode
- PLL with programmable VCO frequency and output divider
- Supports 12MHz~24MHz XTAL
- 80MHz oscillator with ±1.5% accuracy
- 12-bit 100kSPS SAR ADC
- Supports 12-bit DAC
- Supports SWD and I^{2}C debug mode
- Supports USB PD, QC, FCP, SCP, AFC, UFCS, and TRANSSION

- 2 UART and 2 I^{2}C interfaces
- 4 advanced timers with PWM generation and capture function
- 1 basic timer with 2 channels
- 6 pairs PWM generator with FSK modulation and frequency jitter support
- Integrates 2-channel high side current sense circuit
- 2-channel 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 QFN48L (6mm×6mm) package

2. APPLICATIONS

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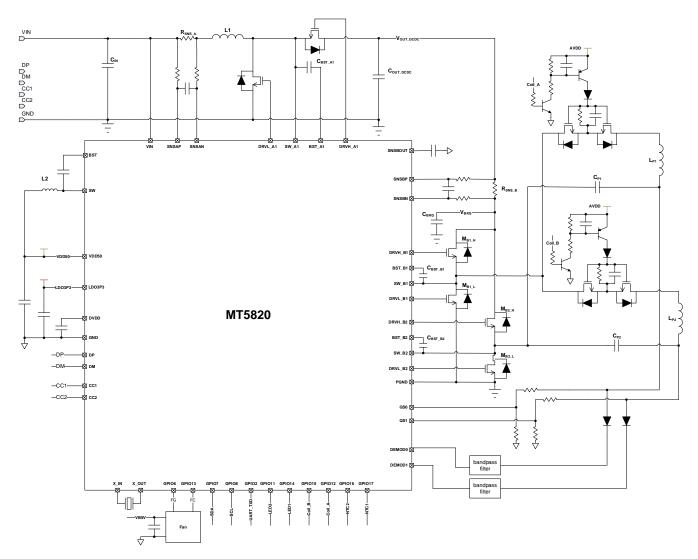- Other wireless power applications

3. TYPICAL APPLICATION CIRCUIT

Figure 1 Typical Application Circuit