



GPMQ8006B

Qi Compliant Wireless Charger

2 Coil Qi Compliant Wireless Charger

Compliant with Qi Basic Power Profile

A11/A11a/A28/A28a

Compliant with Qi Extended Power Profile

MPA2/MPA8/MPA11/MPA9(2Coil)

Integrated H Bridge MOSFET Driver

NOV. 11, 2018

Version 1.1

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QI COMPLIANT WIRELESS POWER TRANSMITTER SERIES

1. GENERAL DESCRIPTION

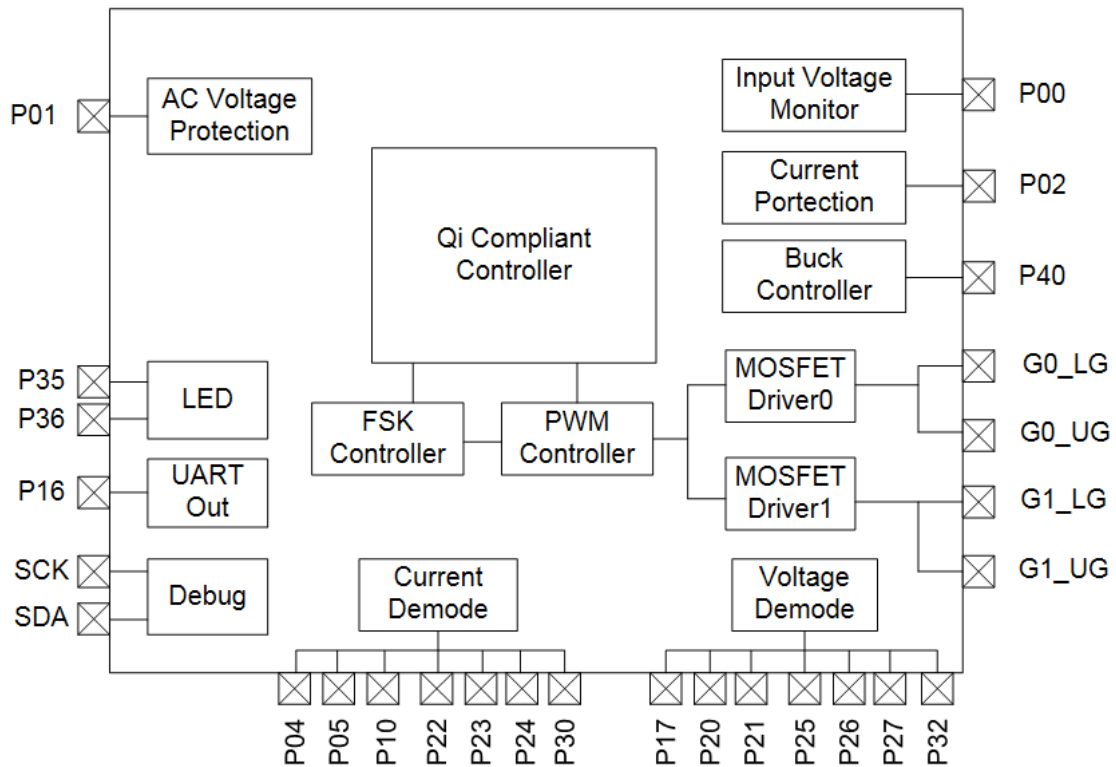
GPMQ8006B is a high-integrated solution for Qi Compliant Wireless Power Transmitter. It integrates the WPC Qi standard of Version V1.2.4 and has high performance in PACKET Decode ability. It can support both BPP and EPP type of Qi standard. Several protection approaches are included to avoid system run into abnormal condition such as overcurrent, low voltage, thermal protection, and offset protection. Built-in Gate driver, can reduce the PCB size. GPMQ8006B integrated PWM and MOSFET Driver inside. It also integrate demodulation circuit inside. **The demodulation circuit and offset protection are under patent pending in many countries**

US Patent: US9444290 / US9362763

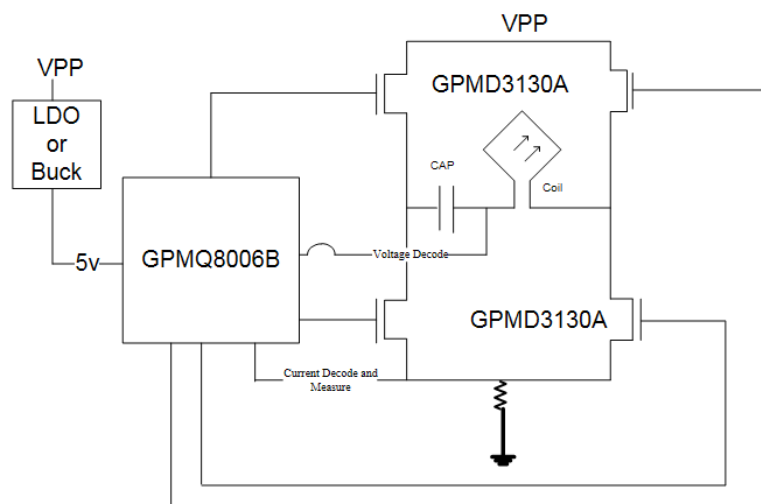
2. FEATURES

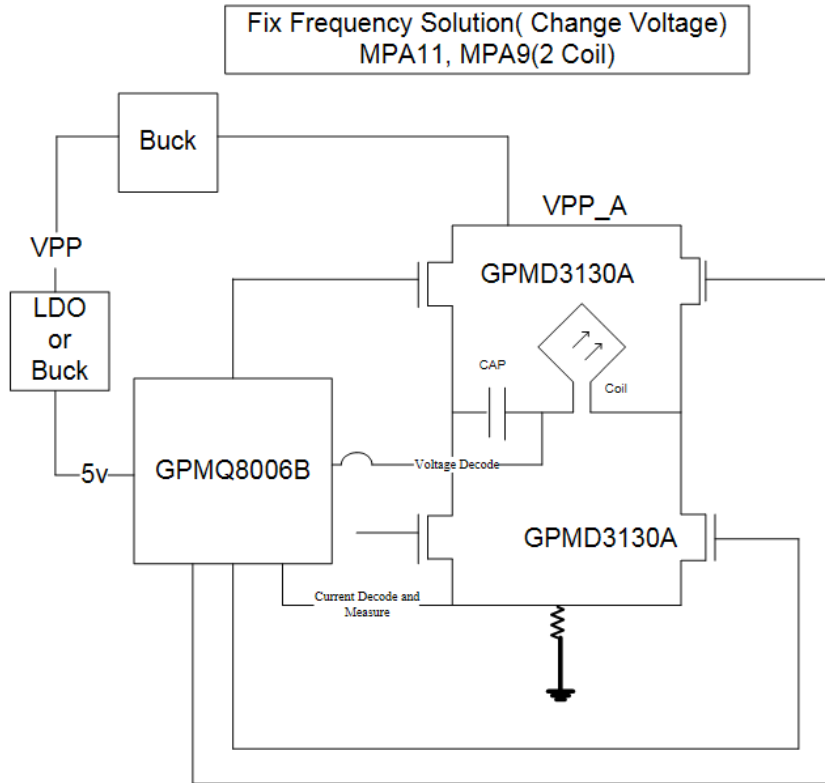
- Compliant to the Wireless Power Consortium (WPC) Wireless Power Transfer Transmitter V1.2.4 Specification.
- GPMQ8006B integrated the MOSFET Driver Inside that can drive H bridge MOSFET sets, especially in wireless charger system.
- GPMQ8006B can use 5V USB DC Input. It supports A11/A11a signal coil standard BPP type. It also support A11/A11a 2 Coil type not standard type coil.
- GPMQ8006B can support A28/A28a 3 coil BPP coil type.
- GPMQ8006B support Qi EPP Guarantee power and can base on customer's power input. It can do 5-15W EPP with 0.5W/step.
- GPMQ8006B can support EPP MPA2(Qi Middle Power Transmitter type) with 12V input to 15W EPP.
- GPMQ8006B can support EPP MPA11(Qi Middle Power Transmitter type) to EPP.
- GPMQ8006B can support EPP MPA8(Qi Middle Power Transmitter type) to EPP.
- GPMQ8006B can support Qi standard EPP MPA9 Coil type (1 or 2 coil EPP).
- GPMQ8006B support wireless FAST Charger. Fast Charger need 9V DC adapter. We can identify the common adapter to apply 9V by GPMQ8006B.
- High performance at signal demodulation. The demodulation circuit is built in at GPMQ8006B.
- Patent method to easy compatible variable RX device.
- Status Indicators for:
 - Charge completed
 - Charging
 - Error (Transmitter over current , Qi standard error message)
 - Standby
- Auto detecting the Foreign object put-on and removal.
- Over current protection.
- Over Voltage Protection
- Package: LQFP 48, QFN48
- Built-in Gate driver
- Chip is 5V input.

3. BLOCK DIAGRAM



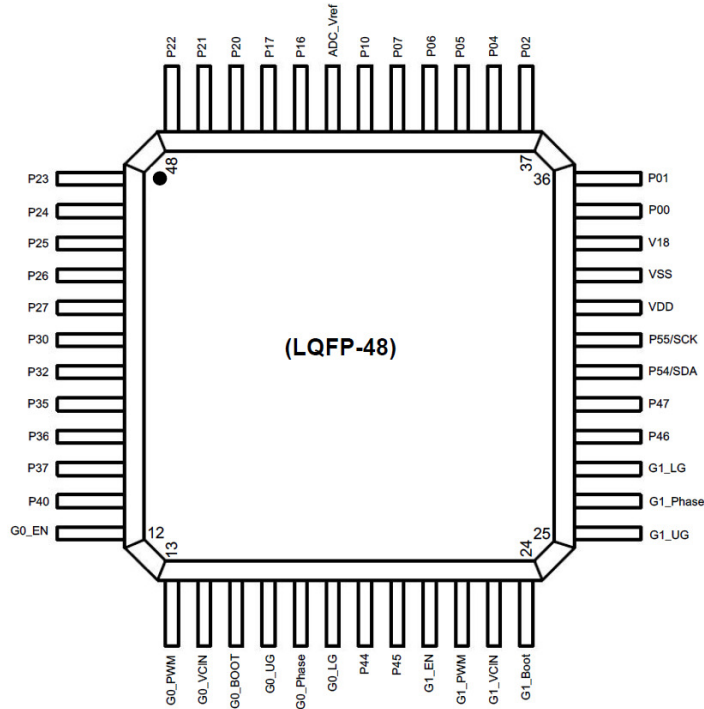
Change Frequency Solution
A11/A11a , A28/A28a , MPA2





4. SIGNAL DESCRIPTIONS

LQFP48



QFN48

