

5W Wireless Power Receiver IC for Resonant System

DESCRIPTION

The MAP7101 is a Wireless Power Receiver IC with single chip solution which complies with A4WP specification. The device receives an AC power signal from wireless power transmitter and converts it into internal regulated output voltage which can be used to power device or supply charger input in portable application.

It integrates an active rectifier which can operate at 6.78MHz power transfer frequency for resonant system, synchronous buck converter with 5V output, low-dropout regulator for external devices and digital communication (I²C) to control the output of buck converter and to report temperature, the voltage and current of rectifier and buck converter.

APPLICATIONS

- Mobile phone, handsets & accessories
- Game console, Remote controls for TV, STB, Audio and media systems
- Sports, fitness, healthcare & audience systems
- Furniture and intelligence kitchen system

FEATURES

- **High Efficiency Wireless Power Receiver**
- **All Integrated Single Chip Solution**
 - 6.78MHz AC rectifier
 - Synchronous buck converter
 - Low dropout regulator for external devices
 - 10 bit ADC.
- **Rectifier Operation**
 - Over 90% efficiency at normal load condition
 - Wide operating range of VRECT
- **Synchronous Buck Converter**
 - Max 1A, 5V Buck output
- **Low dropout regulator**
 - 50mA, 3.3V LDO for WiFi and Bluetooth
- **Voltage & Current sensing**
 - Rectifier and Buck output voltage
 - Rectifier and Buck output current sensing
- **NTC for temperature monitoring available**
- **I²C interface**
- **Over voltage / current protection**
 - Over voltage protection for Rectifier : 17.5V
 - Over voltage protection for Buck : 5.4V
 - Over current limit for LDO : 200mA
- **Thermal shutdown**
- **TQFN & WLCSP Assembly**
 - 28L QFN 3.5x5.5mm², 0.75T Available
 - 36Ball WLCSP 1.9x3.9mm², 0.6T
- **Green & RoHS**



TYPICAL APPLICATION

