

NU1305: Wireless Power Controller for 5W Transmitter

Feature

- Input Voltage: 4.5V to 5.5V
- Compliant with WPC 1.2.4 to Work with A28 Two Coils
- PWM Output 110KHz to 205KHz
- Reliable and Accurate Foreign Object Detection (FOD)
- LED for Charging Status and Fault Reporting
- Built-In Demodulation Circuit for Communications
- Input Low Voltage Detection
- Input Over Voltage protection
- Limited Power to Prevent Overloading Input Sources
- Over-current Protection
- Over-temperature Protection with NTC Input
- Internal Oscillator
- Interface with NU1006 to Form 5W two coil Solutions
- 28 Pin 4mm x 4mm QFN Package

Applications

- Wireless Power Transmitter Compliant with WPC V1.2.4
- General Wireless Power Transmitter for Consumer, Industrial and Medical Applications

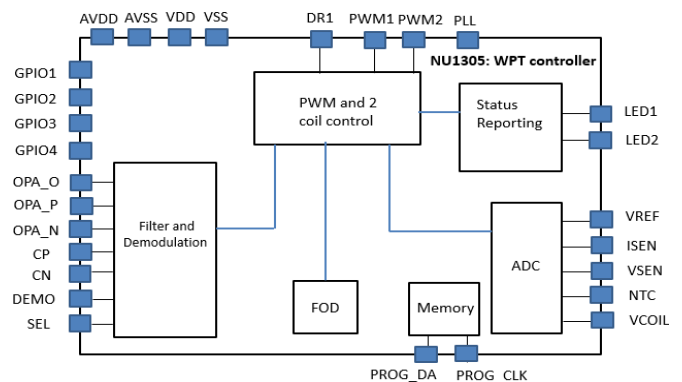
Descriptions

NU1305 is a highly integrated digital controller for wireless power transmitter compliant with WPC 1.2.4 standard. This device and NU1006, the companion power stage IC, form simple, high-performance and cost-effective wireless power transmitter solutions suitable for a wide range of applications.

NU1305 integrates all essential functions to deliver regulated power and maintain robust communications with WPC compliant receivers. The integrated demodulation circuit removes external amplifiers and comparators. The device is housed in a 4mm x 4mm QFN package, making it a compact transmitter controller. Used with NU1006, the smallest and most integrated power IC, the two-chip turnkey design provides the most space saving solutions.

NU1305 also emphasizes on providing reliable and robust charging experience by preventing any transient conditions, such as receiver load variations and Rx/Tx coupling changes, from disrupting communications and continuous charging. The device adopts a proven foreign object detection (FOD) scheme to detect metal objects and prevent harmful heating. The device also integrates the protection features such as over-temperature and over-current protections, input low-voltage detection and input power limit

Block Diagram



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