### **Overview Of TI Transmitter Solutions**

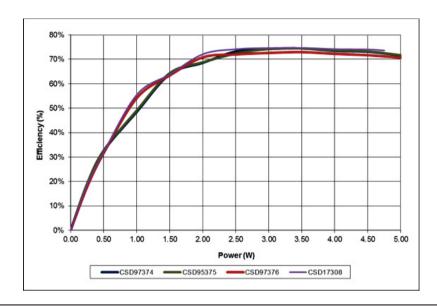
	bq500210	bq500212A	bq500412	bq500414Q
Voltage In	19V	5V	12V	12V
Transmitter Type	A1/A10 (1 Coil)	A5/A11 (1 Coil)	A6/A19 (1, 2 or 3 Coil)	A6/A19/A21 (1,2 or 3 Coil)
Output Power	5W	5W	5W	5W
Full/Half Bridge Drive	НВ	FB	НВ	FB
Dynamic Power Level	No	Yes	Yes	No
Charging Area	18mm Diameter	18mm Diameter	70x20mm Diameter	~70x20mm Diameter
WPC1.1	No (Contact Factory for 210A)	Yes	Yes	Yes
2 Way comms	No	No	No	No
Released to Market	Yes (210A Planned)	Yes	Yes	No (3/14)
Samples/ EVM	Yes (inc 210A)	Yes	Yes	Now

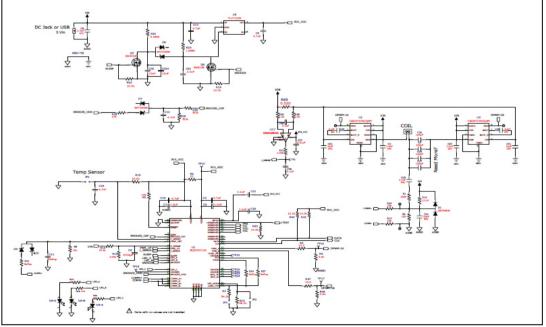
## bq500212A Simplified BOM, 5V Transmitter for A5/A11

#### **Features**

- Simplified BOM reduces system cost in 5V A5/A11 WPC1.1 Transmitters. Only 5 IC's needed
- Enhanced "Foreign Object Detection" scheme simplifies Compliance to WPC1.1
- Patented "Dynamic Power Limit™" approach for robust operation from USB port/Low Power adapter
- Simplified Standby Circuit ensures compliance w/ CEC-100 Specification
- Supports Hybrid Cap scheme w/ X7R/OG Res Caps to reduce System Cost

Standby Power	bq500211	bq500211A w/ MSP430	bq500212A
No Rx on Pad	<210mW	<90mW	<100mW
Rx on Pad (Chg Comp)	<210mW	<90mW	<50mW



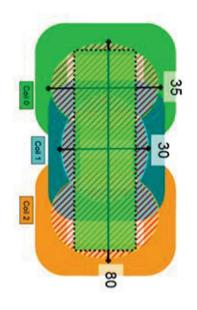


### bq500412

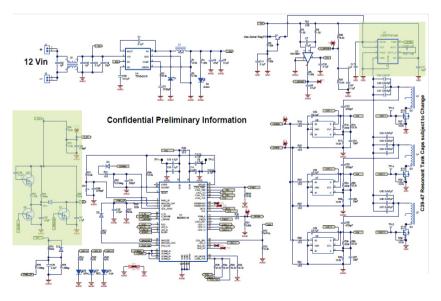
#### Reduced BOM Transmitter for 1-3Coil A6 Transmitters

## **Features**

- Freepositioning Wireless Power Transmitter Solution
- Supports A6 and A19 Transmitter Types
  - 12V Input Voltage
  - 1, 2 or 3 Coils
  - Drives one coil at a time for highest efficiency
- No Holes in Charging Area
  - Even in transition between coils
- Simplified BOM
  - Number of IC's reduced >30%
  - 1 Drive Stage instead of 3
  - No MSP430 Supervisor for CEC Compliance
- Enhanced "Foreign Object Detection" scheme simplifies Compliance to WPC1.1
- Implements "Dynamic Power Limit<sup>TM</sup>" approach for robust operation from USB port/Low Power adapter, when 5V Boost Converter used







## **Highlighted Key Features**

#### **Dynamic Power Limit™**



- Patented Dynamic Power Limit™
   Function
- Designed to simplify use with USB Port or Low Power Adapter
- bq500212A monitors input rail to ensure Power Supply stays in regulation....limiting o/p power if required

#### **Sequential Charging**



- bq500412 allows for Sequential Sequencing of Multiple Receivers
- Once one RX has finished charging, ETP signal sent
- Transmitter then Pings Each coil
- Power delivered to new Receiver

# Wireless Power Transmitters for Automotive Systems

Solutions today for "Aftermarket" applications:

bq500412A

- 3 Coil Transmitter Type for Enhanced Spatial Freedom
- Fully released, and supports latest WPC1.1 Standard
- 3 Coil solution ensures High System Efficiencies of >70%
- New Products in Development for "In Car" systems:

bq500414Q

- Q100 version of bq500410A
- Benefits from same features of High Efficiency and Spatial Freedom
- Enhanced with access to I2C Interface for System Control/Feedback
- Sample now, RTM 3Q'14