Qi Configurable Receiver for Debug, Verification, and Testing of Qi Transmitters

APPLICATION

Product developers looking to quickly characterize and test Qi medium power wireless transmitter functionality. The Receiver Simulator provides a variety of test modes for assessing transmitter performance. It is useful for system debugging, product demonstrations, Qi pre-compliance testing, production testing, and as a general purpose Qi receiver.

FEATURES

- Fully functional Qi medium power (15 Watt) receiver
- Stand alone, easy to use device in rugged enclosure
- +5VDC +/- 5%, 3.0A max output (Vout subject to change)
- Selectable comm. tests and modulators
- LEDs for device status
- Test points for bridge voltage and digital comm. data
- Selectable internal loads up to 2.0W in 0.25W steps
- Screw terminals for connecting external loads up to 5.0W
- Factory calibrated to improve received power accuracy
- Over reports received power by +200 mW (for FOD)

TEST MODES

- Standard Qi compatible medium power receiver
- Various test modes using DIP switches
  - No comm. or undefined or invalid comm. Packets
  - Invalid data bit rates or checksum
  - Invalid packet order or timing
  - Invalid WPC spec version
  - Multiple power control hold-off packets
  - Control error packets at minimum intervals
  - Repeated negative control error packets
  - EPT packets with reason codes
  - No power packets

MODULATORS AND LOADS

- Selectable AC capacitive, AC resistive, and DC resistive modulators
- Selectable 0.0W to 2.0W internal loads in 0.25W steps
- External loads up to 15.0W can be connected (internal load disabled)