# 90W, 19V Power Adapter Demo Design Using the CS1500 Digital Power Factor Correction IC

## Main Features
- **Universal Input**
  - Mains Range: 90–265 VAC
  - Line Frequency: 45–65 Hz
- **Rated Output Specification**: 19 V, 90 W
- **EN6100-3-2 Class-D Compliance**
- **Efficiency**: 87% @ 90 W, 230 VAC
- **Low No-load Power Dissipation**
- **Low PFC Component Count**
- **Board Dimension**: 50 mm x 142 mm

## General Description
The CRD1500-FB circuit has two stages: a digitally controlled front-end PFC and a quasi-resonant flyback converter. The CS1500 is a high-performance power factor correction (PFC) controller for universal AC input that uses a proprietary digital algorithm with variable on-time, variable frequency, & DCM, which ensures unity power factor.

The quasi-resonant flyback converter uses the L6566A flyback controller and is dedicated to controlling the circuit’s standby/normal operation mode, which controls the on/off state of the PFC stage by means of a dedicated pin (Vcc_PFC), which helps to achieve an excellent efficiency at light-load and no-load conditions.

To get the complete data sheet, please visit: [www.cirrus.com/PFCdatasheets/CRD1500-FB-07](http://www.cirrus.com/PFCdatasheets/CRD1500-FB-07)

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![Image of the circuit with AC Line Input (90-265 VAC) and 19VDC GND](image.png)

Actual Size: 50mm x 142mm