Infineon’s new synchronous rectification (SR) controller family for switching mode power supply (SMPS) meets the new 2016 standards set forth by the U.S. DoE and EU CoC demanding higher efficiency from external power supplies. Up to 3 percent efficiency improvement is required to meet the new standards. Together with Infineon’s best-in-class OptiMOS™ and StrongIRFET™, IR1161L and IR11688S are here to provide a simple way to drive the MOSFETs and therefore improve efficiency by 1 to 3 percent depending on output loads. IR1161L is targeting flyback SMPS especially charger and adapter applications while IR11688S is focusing on LLC SMPS applications.

**IR1161L**
The IR1161L provides direct sensing eliminating the need for external voltage dividers. It is available in a compact SOT-23 package, which is 70 percent smaller than the popular SOIC-8 package. The programmable minimum on time (MOT) protection ensures reliable operation from no load to full load.

**Key features**
- DCM, CrCM/QR mode capable
- 200 V direct sensing
- SOT-23 package
- Cycle-by-cycle MOT protection
- Low quiescent current
- Programmable MOT

**Applications**
- Flyback SMPS for chargers and adapters

**Typical application block diagram for IR1161L**

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Synchronous rectification controller for SMPS
IR1161L and IR11688S

IR11688S
The IR11688S offers low quiescent current which meets the new 2016 efficiency standard requirements. The IR11688S provides programmable MOT protection to ensure reliable operation from no load to full load.

Typical application block diagram for IR11688S

Key features
› 200 V direct sensing
› Cycle-by-cycle MOT protection
› Low quiescent current
› Programmable MOT

Applications
› LLC SMPS for televisions, desktops, silver boxes, microservers

Product portfolio

<table>
<thead>
<tr>
<th>Part number</th>
<th>Topology</th>
<th>Package</th>
<th>V_{in} [V]</th>
<th>I_{in}/I_{out} [A]</th>
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<td>IR1161L</td>
<td>Flyback SR</td>
<td>SOT-23</td>
<td>200</td>
<td>1 / -2.5</td>
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<td>IR11688S</td>
<td>LLC SR</td>
<td>SOIC-8</td>
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