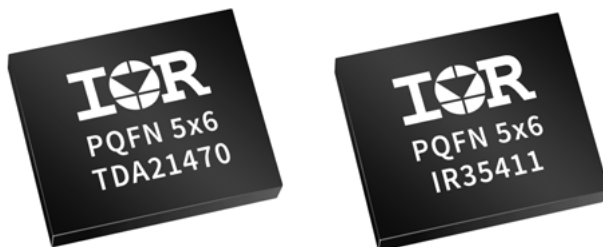




Product Brief

The latest generation of high efficiency 25 V integrated power stages

The new integrated power stages from Infineon combine the most advanced low voltage MOSFET technology with our latest driver design. These technologies, integrated into our proven multichip PQFN package offer customers a best-in-class efficiency device for managing processor power. This integration of driver technology, FET technology and package technology also demonstrates the powerful combination of Infineon and International Rectifier's capabilities. All integrated power stages in this new portfolio are available in industry standard 5x6 footprints and various current ratings, covering high-end and price performance customer requirements.



Dual edge trim dead time leads to a significant improvement in peak efficiency. The internal MOSFET $R_{DS(on)}$ current sensing (via dedicated Kelvin GND connection) with integrated temperature compensation achieves superior current sense accuracy versus inductor DCR sense methods. Our new integrated power stage family also offers cycle-by-cycle over current protection with programmable threshold and fault flag. Additionally, our programmable constant current limit OCSET allows the user to set a specific current limit. UVLO protection supports stable operation during system start up.

Infineon's new generation of integrated power stages is optimized for CPU core as well as GPU and DDR memory power delivery in server, telecom and datacom applications.

Key features

- > Small 5 x 6 x 0.9 mm³ overmolded PQFN package, 0.45 mm pitch
- > Highly accurate current reporting
- > Programmable constant current limit OCSET
- > Fast switching technology for improved performance at higher frequency, better peak efficiency
- > Input voltage range 4.25 V to 16 V
- > Output voltage range from 0.25 V up to 5.5 V
- > Output current capability up to 70 A
- > Operation up to 1.5 MHz
- > Optimized for 5 V drive

Key benefits

- > Peak efficiency > 95%
- > 2.5 mA ICC, with low I_Q (< 200 μ A) disable PS4 (deep sleep mode) capability

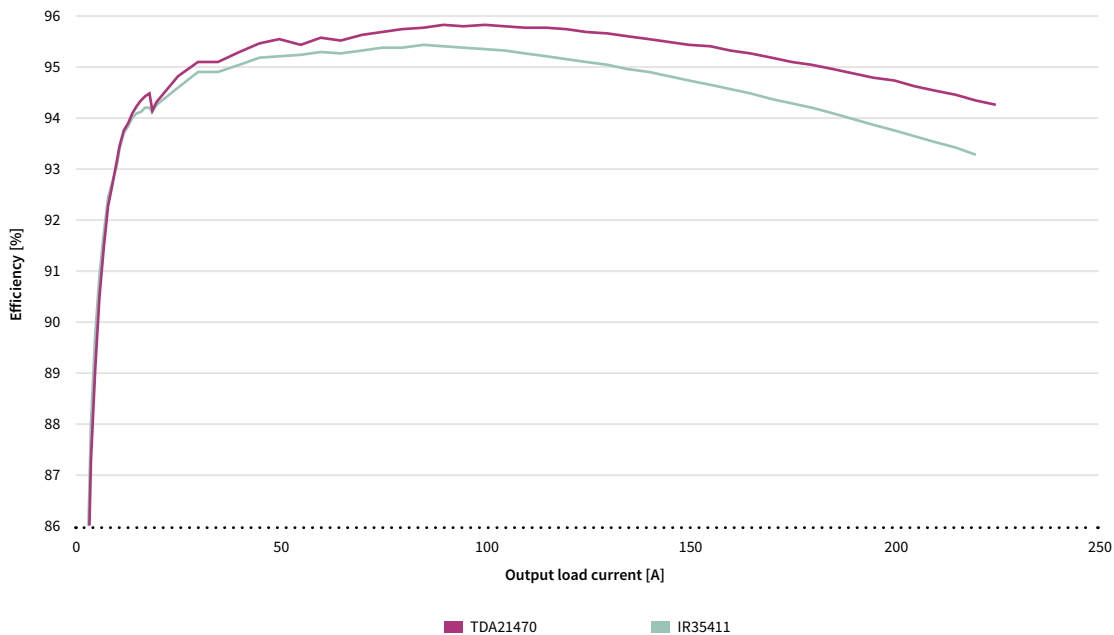
Applications

- > Server and storage
- > Telecom
- > Datacom



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Efficiency - includes driver, controller and inductor losses



Efficiency levels at $f_{sw} = 500$ kHz, $V_{in} = 12$ V, $V_{out} = 1.82$ V, five-phase measurement

| Product | Max. Avg. current* [A] | Quality samples available | Production |
|-----------|------------------------|---------------------------|------------|
| IR35411* | 60 | Q2/2016 | Q3/2016 |
| IR35412* | 50 | Q2/2016 | Q3/2016 |
| TDA21470* | 70 | Q2/2016 | Q3/2016 |
| TDA21460* | 60 | Q2/2016 | Q3/2016 |

*Further portfolio available, please contact your local sales counterpart or visit www.infineon.com/integrated-powerstages

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For further information on technologies, our products, the application of our products, delivery terms and conditions and/or prices, please contact your nearest Infineon Technologies office (www.infineon.com).

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