

Air-conditioning Inverter

High efficiency inverter application kit featuring Infineon's latest RC-Drives IGBT and microcontroller technology



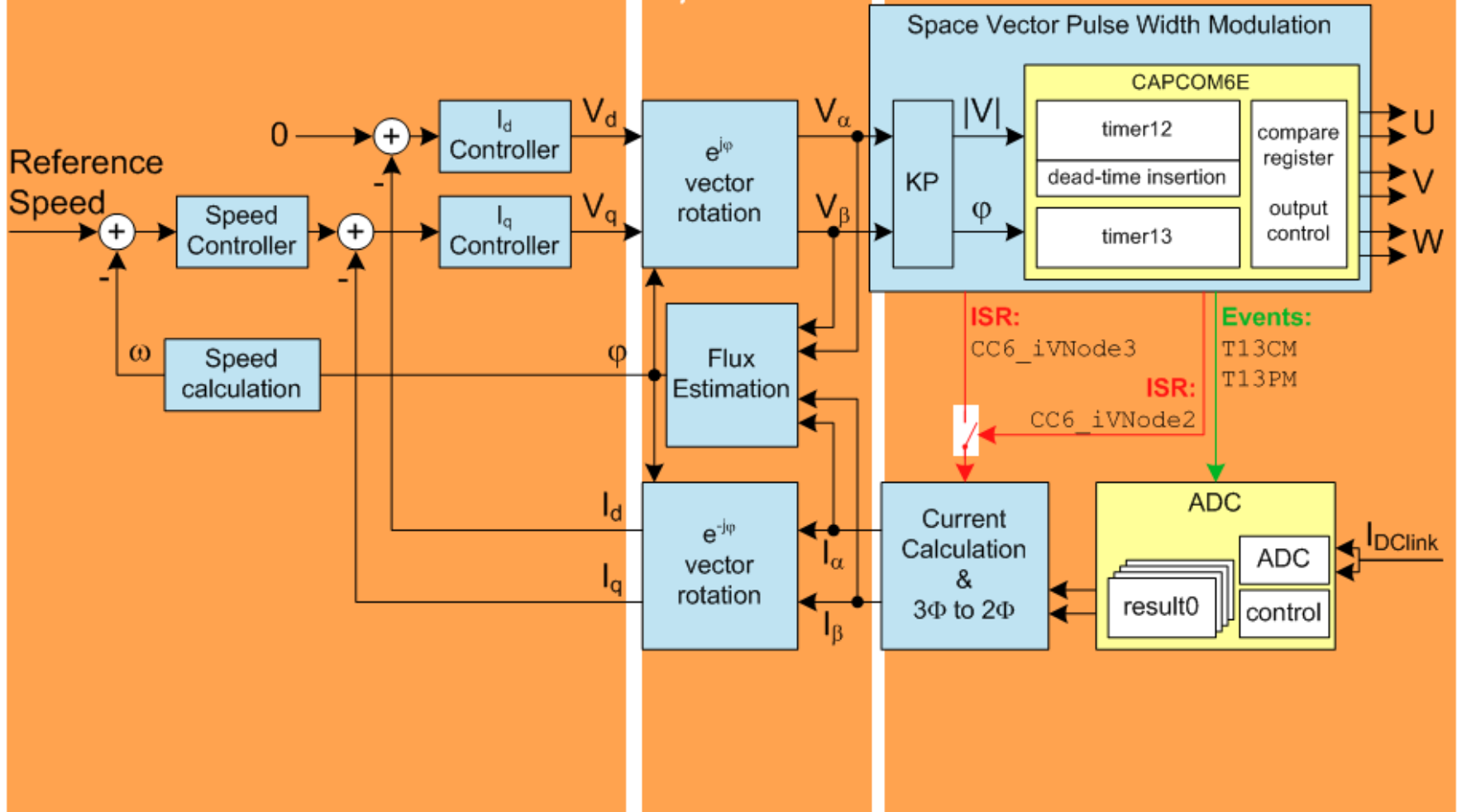
- Size and thermally optimized reference platform for inverterized airconditioning systems
- 1 kW compressor inverter stage using 15 A RC-Drives IGBT in D-PAK (TO-252)
- 200 W outdoor fan inverter stage using 4 A RC-Drives IGBT in D-PAK (TO-252)
- 1.5 kW CCM-PFC using 20 A High Speed 3 IGBT and 10 A SiC-Diode
- Software package including source code
- Simultaneous control of two PMSM with sensor less FOC & digital PFC with XE164
- Sensorless FOC & digital PFC with XC878
- V/f control of induction motors for quick evaluation
- Free toolchain for XC878 and XE164 including compiler and debugger
- Digital isolated real time monitoring tool (USB to JTAG and CAN bridge)



2Φ Rotor System

2Φ Stator System

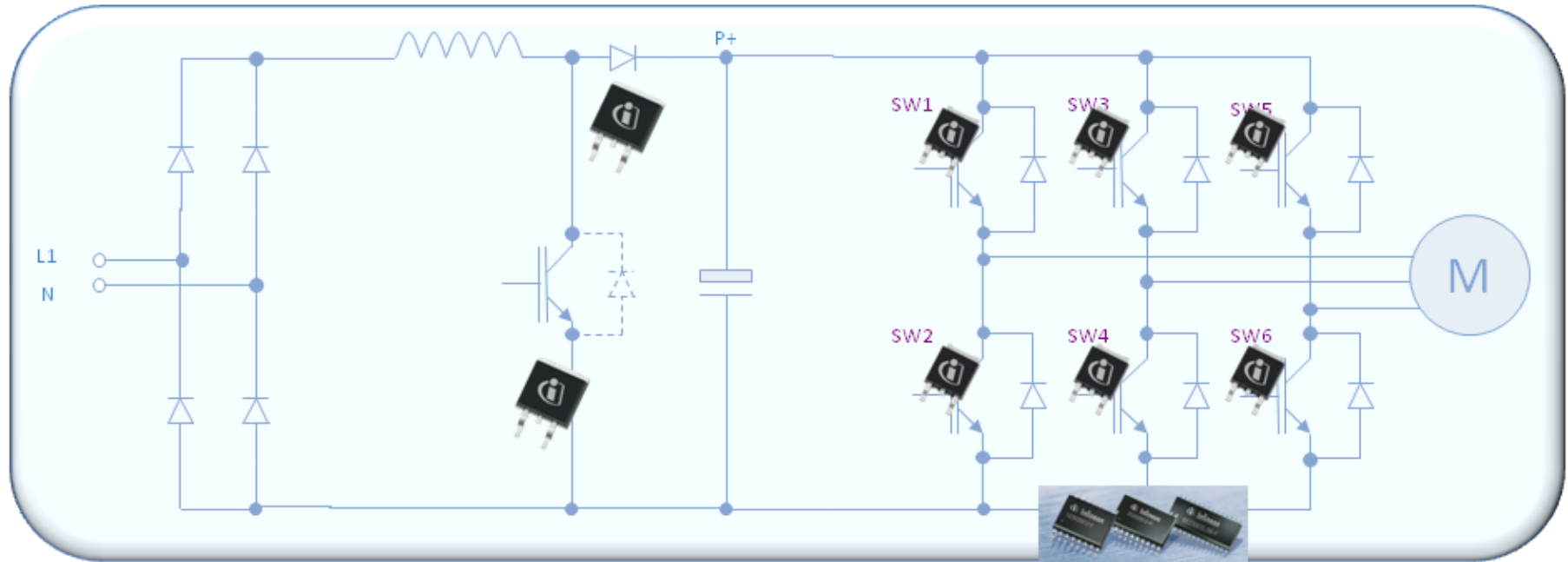
3Φ Stator System





Applications

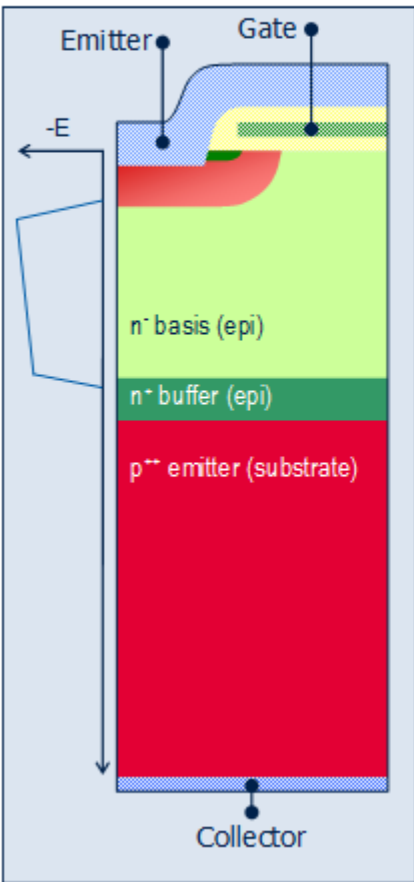
- 1 **MotorAppln**
 - BLDC Motor
- 2 **Algorithms**
 - Block Commutation
 - Field Oriented Control
- 3 **MicroControllers**
 - BLDC - 8Bit
 - XC888
 - XC886
 - XC864
 - XC878
 - XC866
 - BLDC - 16Bit
 - XE164



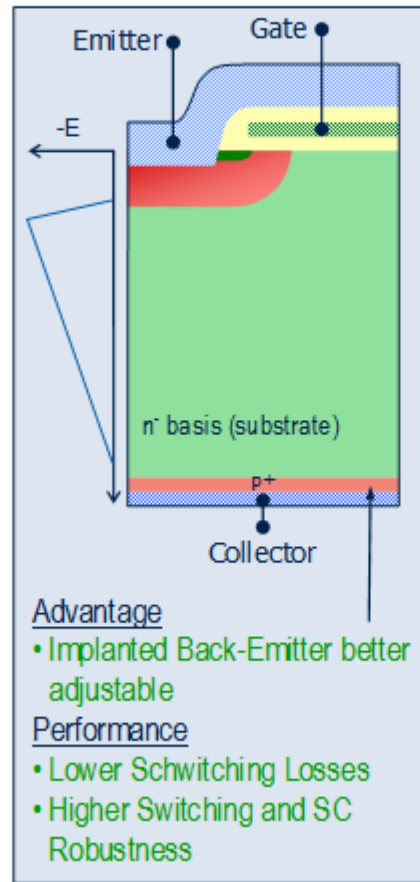
Einzel oder Duo-Pack IGBT
in *Highspeed 3* Technologie und
ThinQ! SiC Diode (bis zu 67 kHz)

IGBT mit integrierter Diode
TRENCHSTOP Technologie
RC-Drives oder Duo-Pack (bis zu 20 kHz)

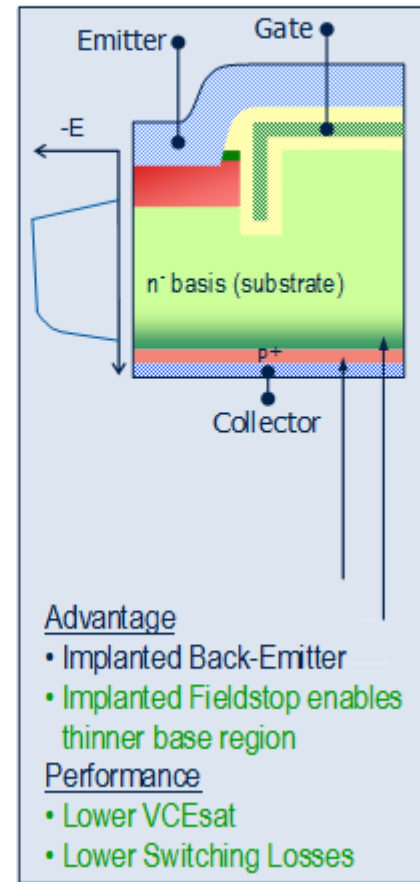
Pnuch Through



Non Pnuch Through



Trench + Field-Stop



RC-IGBT

