



Software Release Notes

Part Number: SW90112
Description: OZGTI3000 Active Front End Controller Firmware
Release Number: 6.0
Release Date: 4/7/2015
Revision: A

New Features:

- Copy IQ Math functions and run out of RAM for faster execution
- Added manual pre-charge control and related CAN command and memory-mapped command register
- Changed *DC Link Pre-charge Enable* configuration parameter (PID 0x80B0) to *DC Link Pre-charge Mode* to add selection for manual mode
- Modified isolated ADC sampling to get latest/present value instead of one PWM period old
- Set initial RMS calculator outputs so that they don't exhibit a transient error at startup
- Now light red SYS_INT LED on board any time AFE is in the FAULT state

Bug Fixes:

- Added Iq current offset to synthesized current waveforms for dead time compensator zero crossings
- Corrected current decoupling to take into account phase rotation and rescale to measured DC link
- Corrected Iq current offset (capacitor current correction) to take into account phase rotation
- Moved DC Link feed forward correction to just after PI updates so that it doesn't adjust the current decoupling or line voltage feed forward adjustments
- Updated stand-alone mode to remove the inversion in each resonant controller output because this had since been corrected in the ozReg library

Compatibility Notes:

- Configuration files supported by this version of the OZGTI3000 controller must have a Factory Configuration Revision of 9.1 or higher.