1 Scope

This document gives an overview of the available application notes for automotive LED drivers using the MLX10803.
Some of these documents have restricted access.
Please contact our local Sales Office if you want to receive these documents.

2 General Application notes

These application notes are applicable independent of the selected topology.

Document Nr	Title	Description
3901110803-71	Analog PWM	Explains how to apply PWM dimming via the IREF pins
-72	Digital PWM	Explains how to apply PWM dimming via VS and VREF pins
-22	Undervoltage shutdown	Explains the behaviour of 10803 at undervoltage condition
-24	Spice model	Includes PSpice model and guideline how to apply the model
-31	Multilamp LED driver	Explains how to apply one MLX10803 to control multiple lamps or intensities.
-33	OverTemp. Protection/ Temp. compensation	Explains how to apply NTC and PTC resistors on IREF pins to realize over temperature protection and temperature compensation of the LED current.
-34	Randomisation + Frequency Selection	Explains the resulting spectral power density due to the randomization, and how this affects the selection of the nominal switching frequency.
	EMC guidelines ppt	EMC guidelines for radiated conducted emissions: component selection and layout

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3 Topology specific Application notes

These application notes are applicable to either buck, Buck-Boost (or non-isolated Flyback), or a multi-stage Boost – buck topology. All practical examples contain results of Conducted Emissions tests according to CISPR25.

TOPOLOGY	BUCK	BUCK-BOOST	BOOST-BUCK (Multi-stage)
Tool Reference	**EVB10803-4** Class 5 Ref. design	**EVB10803-5** Class 5 Reference design	EVB10803-3 Evaluation board
Application notes	**-21**: Low noise RCL demo **-32**: 300kHz operation **3901110801-03**: Diagnostics feedback	**-30**: Buck Boost Reference design (summary) **-23**: Buck Boost Reference design. (Full version) **-25:** Minimum BOM, 6W , Class 3 (Zener compensation) **-26:** 15W application, Class 4 **-28**: Diagnostics feedback	
Coil calc tool	Coil_calc.xls	Buckboost_CM_coilcalc.xls	

Red: under development.