

# ECU design checklist

TLD5097EP - TLD5098EP - TLD5099EP

## About this document

### Scope and purpose

This checklist helps to quickly spot design issues of components connected to TLD509xEP.

### Intended audience

Hardware engineers

## Table of contents

About this document.....	1
Table of contents.....	1
1 Check points on schematics.....	2
2 Checklist .....	4
Revision history.....	5

Check points on schematics

# 1 Check points on schematics

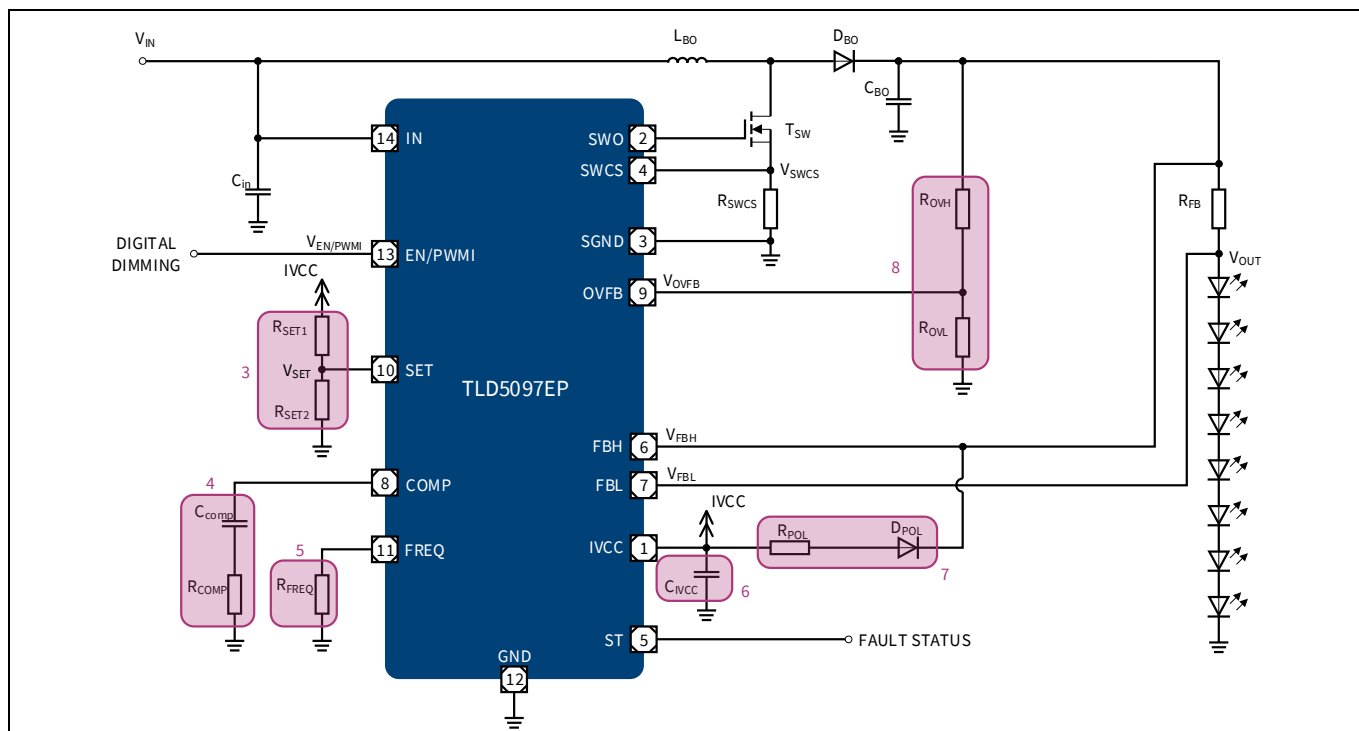


Figure 1 TLD5097EP Check points

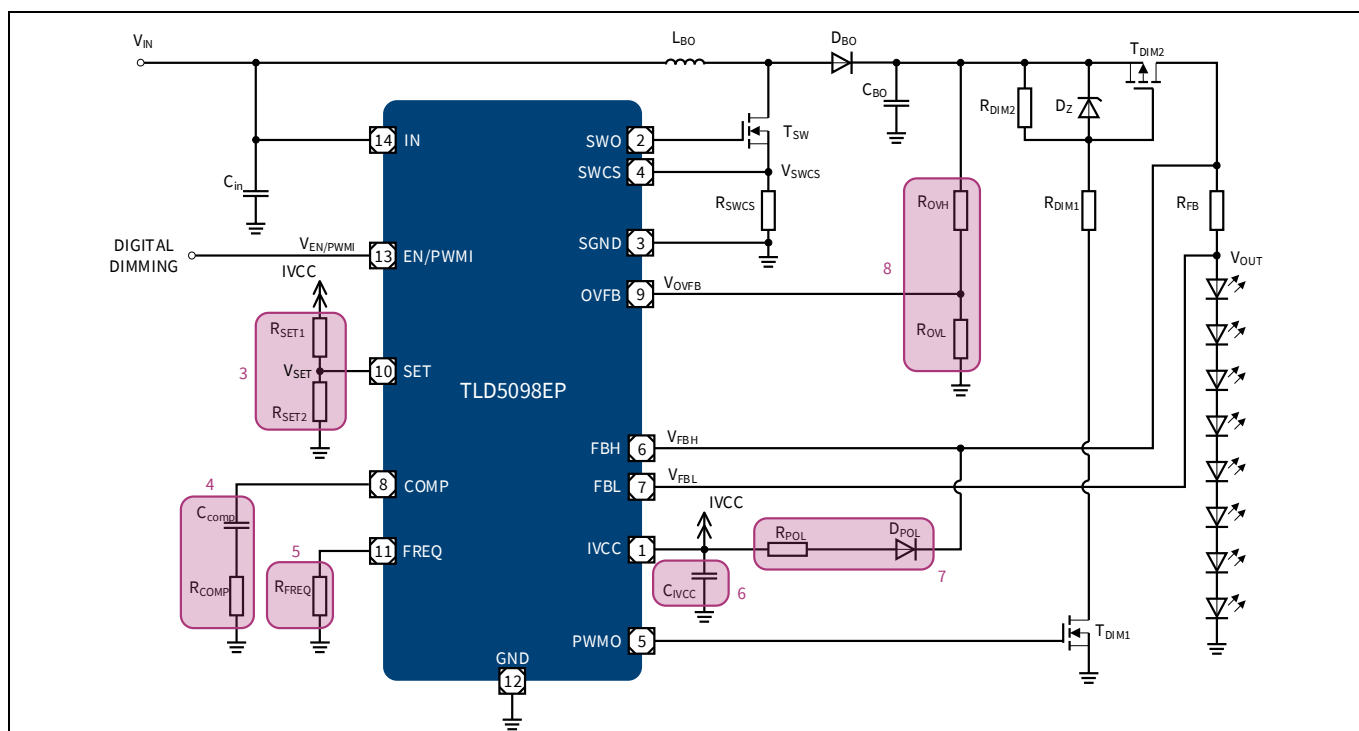
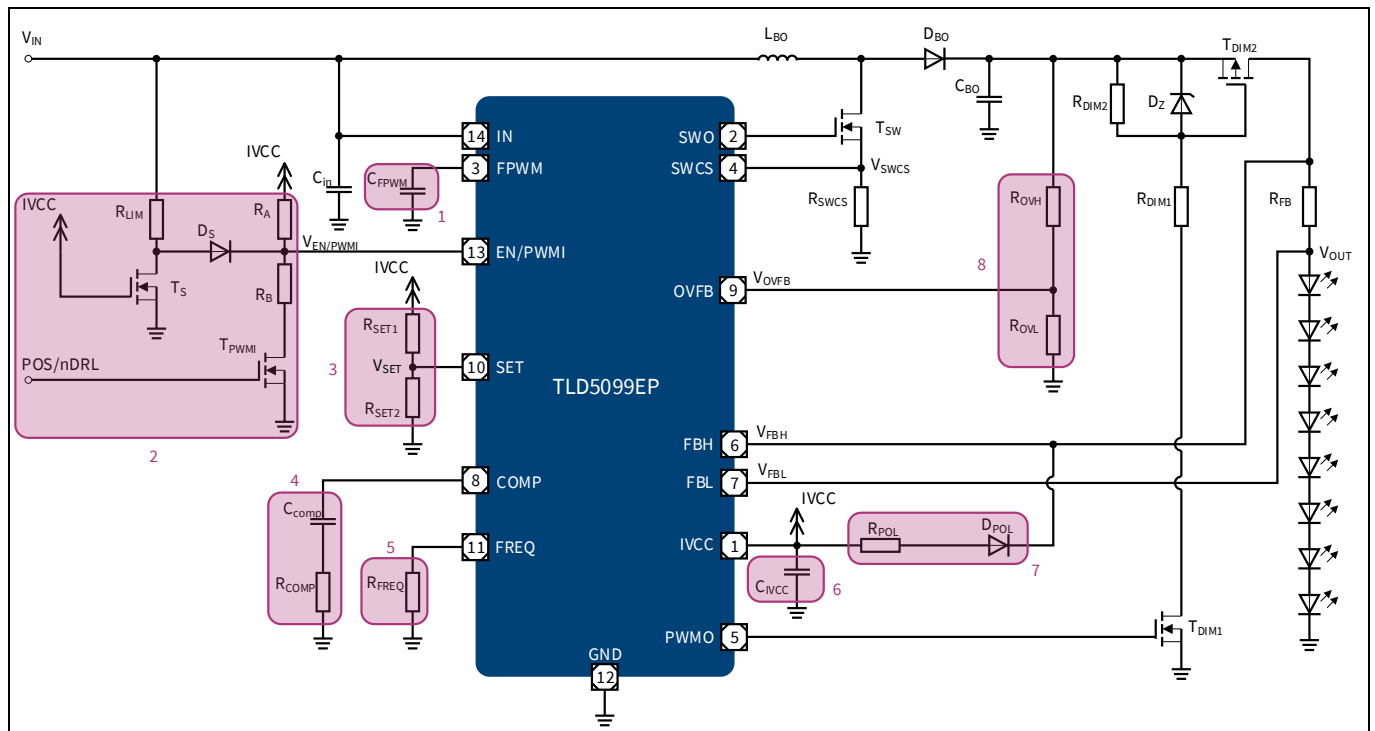


Figure 2 TLD5098EP Check points

**Check points on schematics**



**Figure 3 TLD5099EP Check points**

**Checklist**

## 2 Checklist

**Table 1 Checklist**

Check point	Parameter	Min.	Max.	Unit	Remarks
1	$C_{FPWM}$	390	1000	pF	-
2	$R_A$	1	10	k $\Omega$	Suggested
	$R_B$				
	$R_{LIM}$				
3	$R_{SET1}$	1	10	k $\Omega$	Suggested
	$R_{SET2}$				
4	$C_{COMP}$	22	470	nF	Suggested
	$R_{COMP}$	0	10	k $\Omega$	
5	$R_{FREQ}$	12	68	k $\Omega$	TLD5097EP-TLD5098EP
		1.8	8.2		TLD5099EP "spread spectrum" ON
		22	82		TLD5099EP "spread spectrum" OFF
6	$C_{IVCC}$	0.47	100	$\mu$ F	-
		4.7	100		PWM engine ON <sup>1</sup>
	$C_{IVCC} \text{ ESR}$	-	0.5	$\Omega$	-
7	$R_{POL}$	1	22	k $\Omega$	Suggested
8	$R_{OVH}$	1	82	k $\Omega$	Suggested
	$R_{OVL}$				

<sup>1</sup> TLD5099EP only

**Revision history**

**Revision history**

Document version	Date of release	Description of changes
Rev.1.00	2020-04-27	First release

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