

DWM1001-DEV Errata

Version 1.0

This document is subject to change without notice.

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DOCUMENT INFORMATION**Disclaimer**

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1 INTRODUCTION

This errata document details known issues with the DWM1001-DEV board. Where available workarounds are presented.

2 ERRATA OVERVIEW

Functional Problem	Short Description	Board Schematic Revision Identifier	Detailed Description
DC-DC-1	The DC-DC used on the DWM1001-DEV is not recommended for DWM1001C carrier board designs.	V3	3.1

3 FUNCTIONAL PROBLEMS DETAIL

3.1 DC-DC-1

3.1.1 Introduction

The DWM1001-DEV uses a DC-DC from Richtek Technology, part number RT8059. This is designated U11 on the board schematics (V3). This DC-DC provides a 3.4 V supply to the DWM1001C module mounted on the development board.

3.1.2 Problem

After characterising the performance of the DWM1001C module it was found that power supply transients during enabling of the receiver can cause packet errors and degraded receiver sensitivity. The reduced receiver sensitivity was observed on the DW1000 by monitoring Reed Solomon (R/S) receiver errors.

3.1.3 Workaround

We recommend customers to use one of the following DC-DC replacements in their carrier board designs:

- 1: Torex XC9258B33 or
- 2: TI TPS62743

Both these devices were characterised with the DWM1001C and good receiver sensitivity performance was seen. A further recommendation is that only DC-DCs with fast transient response resulting in no more than 15 mV ripple should be used on the 3.3 V power supply.

4 DOCUMENT HISTORY

Table 1: Document History

Revision	Date	Description
1.0	14-Aug-2019	Initial release

5 FURTHER INFORMATION

Decawave develops semiconductors solutions, software, modules, reference designs - that enable real-time, ultra-accurate, ultra-reliable local area micro-location services. Decawave's technology enables an entirely new class of easy to implement, highly secure, intelligent location functionality and services for IoT and smart consumer products and applications.

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