

HW Differences between Cinterion[®] PLSx3-X and PLSx3-X4 Products

Delta Report

Version: 01
DocID: PLSx3-X_PLSx3-X4_rev22_hw_delta_v01

Document Name: **HW Differences between Cinterion® PLSx3-X and PLSx3-X4 Products**

Version: **01**

Date: **December 07, 2020**

DocId: **PLSx3-X_PLSx3-X4_rev22_hw_delta_v01**

Status: **Confidential / Released**

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1 Introduction

This document describes the Cinterion® PLSx3-X and PLSx3-X4 hardware design differences, including:

- Changes from PLSx3-X Rev. 2.2 to PLSx3-X4 Rev. 2.2
- Differences between PLS83-X/X4 Rev. 2.2 and PLS63-X/X4 Rev. 2.2

As US operator projects, PLSx3-X4 variants support different bands from base variants PLSx3-X, as shown in Table 1. Both variants use the same footprint and PCB layout. Different hardware IDs are implemented to identify different variants.

Table 1: Supported frequent bands

Variants	Technology	2	4	5	12	13	14	25	26	66	71
PLS63/83-X (base variants)	LTE	x	x	x	x	x	x	x	x	x	x
	WCDMA	x	x	x							
PLS63/83-X4	LTE		x			x					

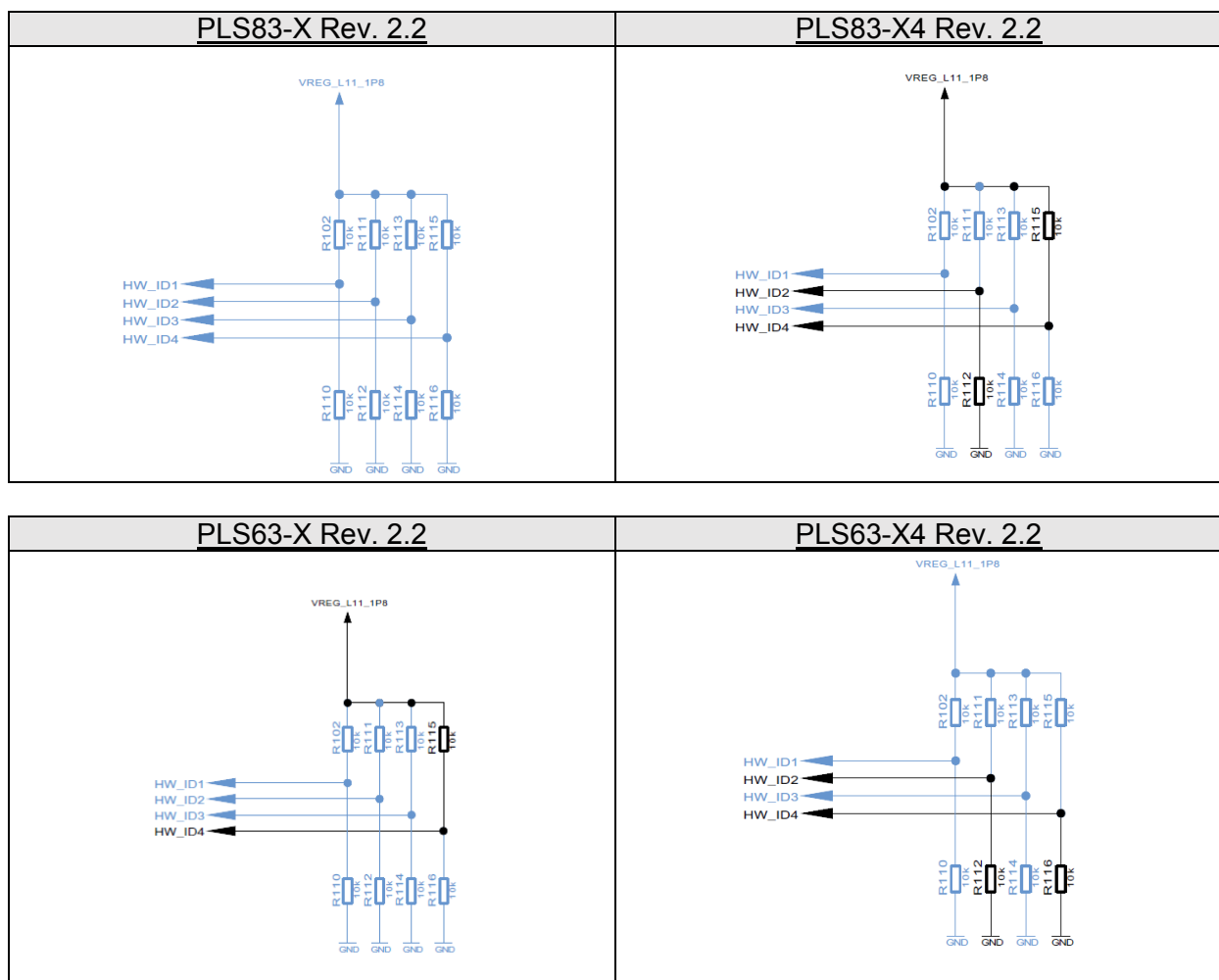
2 Baseband Hardware Differences between PLSx3-X Rev. 2.2 and PLSx3-X4 Rev. 2.2

This section describes the differences on the baseband part.

Schematic Differences

The following sections highlights the schematic differences on baseband between PLSx3-X Rev. 2.2 and PLSx3-X4 Rev. 2.2. Different hardware IDs are implemented to identify different variants.

Note: Components in black are populated, components in blue are not populated.



PLS83-X/X4 Rev. 2.2 are designed with a Cat. 4 processor, while PLS63-X/X4 are based on a Cat. 1 processor. The two processors are pin-pin compatible.

PLS83-X/X4 Rev. 2.2	PLS63-X/X4 Rev. 2.2
Cat. 4 processor	Cat. 1 processor
U100: 600000001376	U100: 600000001377

3 RF Hardware Differences between PLSx3-X Rev. 2.2 and PLSx3-X4 Rev. 2.2

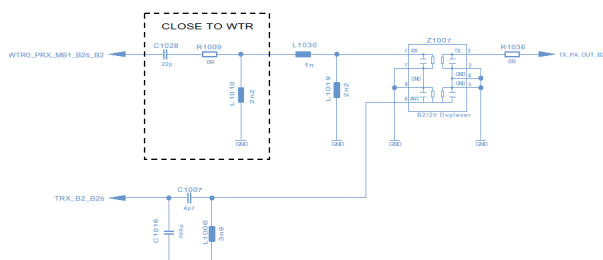
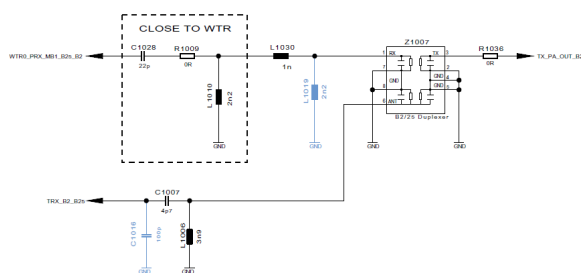
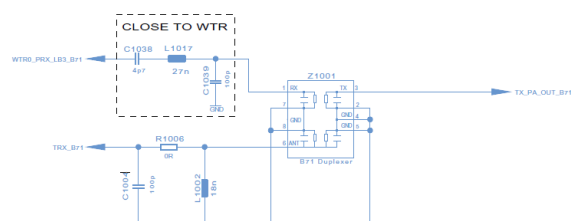
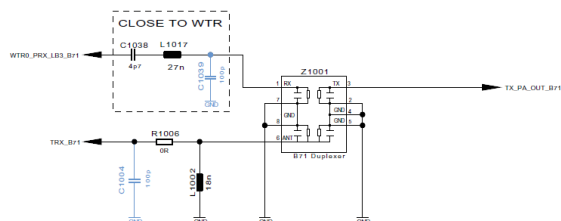
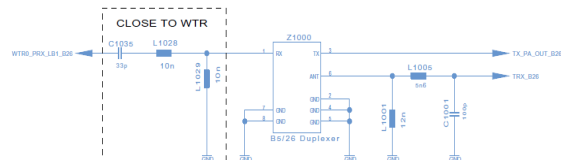
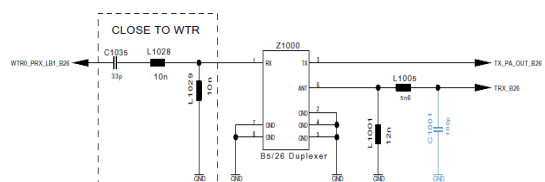
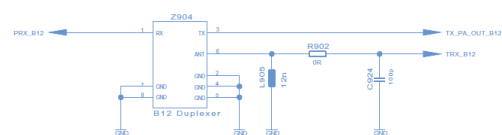
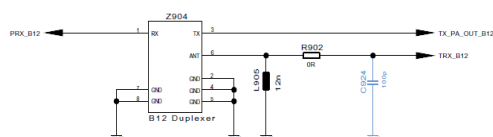
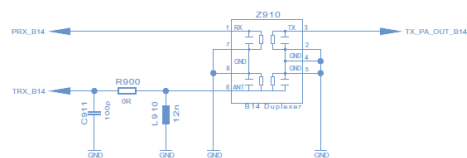
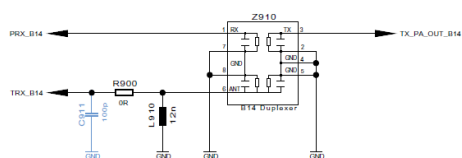
This section describes the differences on the RF part.

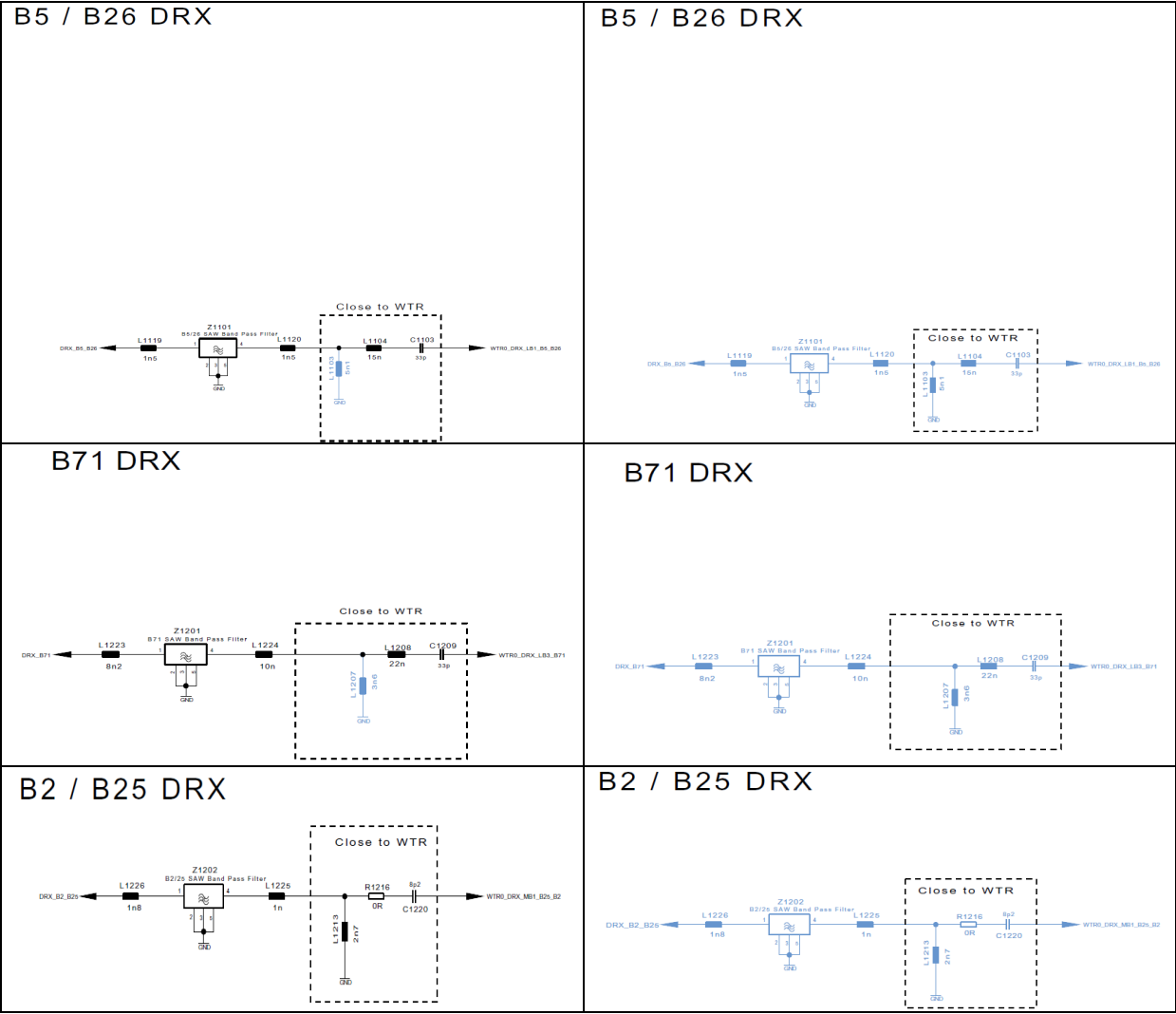
Schematic Differences

The following sections highlights the schematic differences on RF between PLSx3-X Rev. 2.2 and PLSx3-X4 Rev. 2.2. The non-supporting bands are disabled in schematic RF part.

Note: Components in black are populated, components in blue are not populated.

PLS83/63-X Rev. 2.2	PLS83/63-X4 Rev. 2.2







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