

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

Delta Report

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Contents

- 1 Introduction5**

- 2 Baseband Hardware Differences between PLSx3-X Rev. 2.2 and PLSx3-X4 Rev. 2.26**
 - Schematic Differences6

- 3 RF Hardware Differences between PLSx3-X Rev. 2.2 and PLSx3-X4 Rev. 2.27**
 - Schematic Differences7

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 | | | | | |

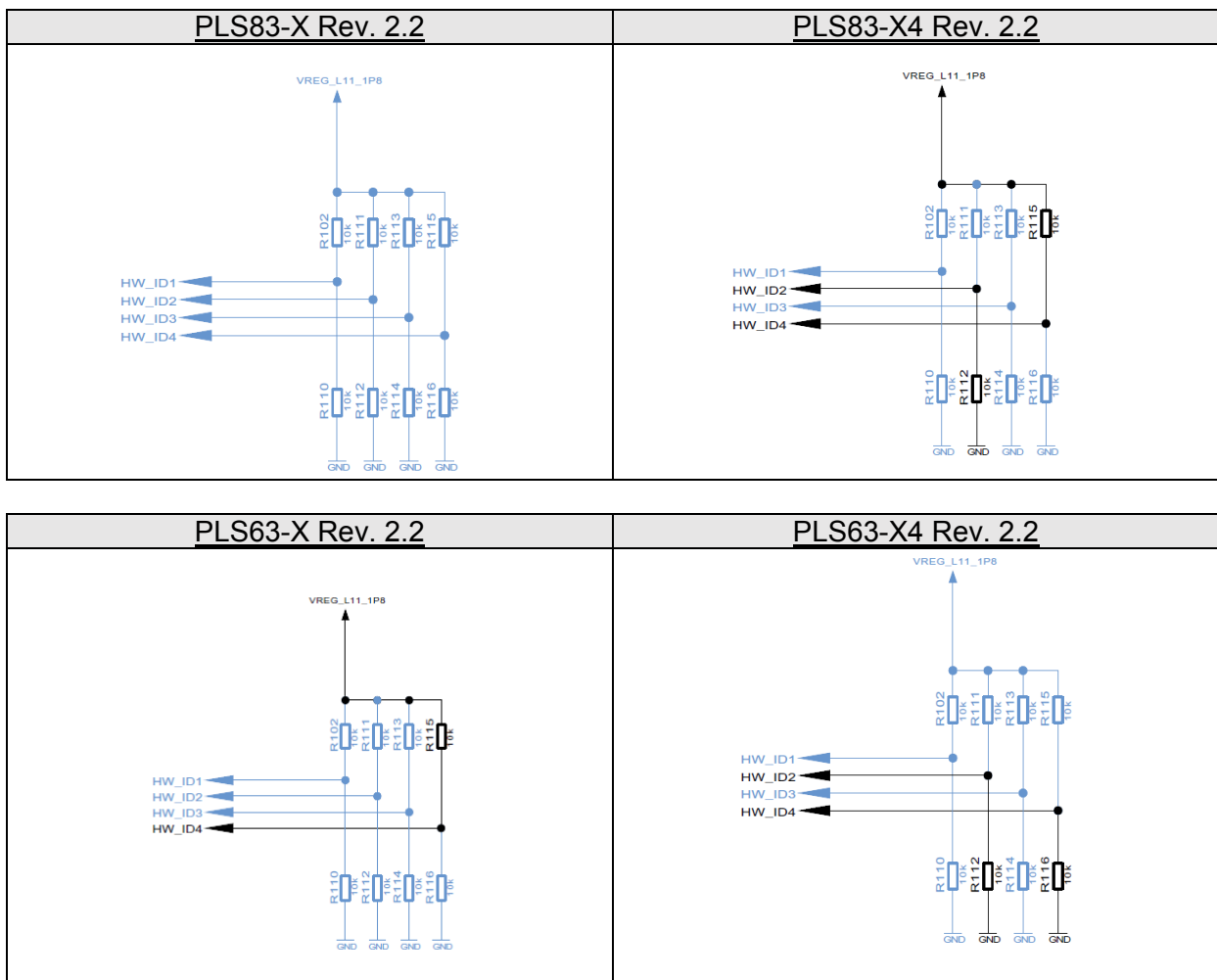
2 Baseband Hardware Differences between PLSx3-X Rev. 2.2 and PLSx3-X4 Rev. 2.2

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

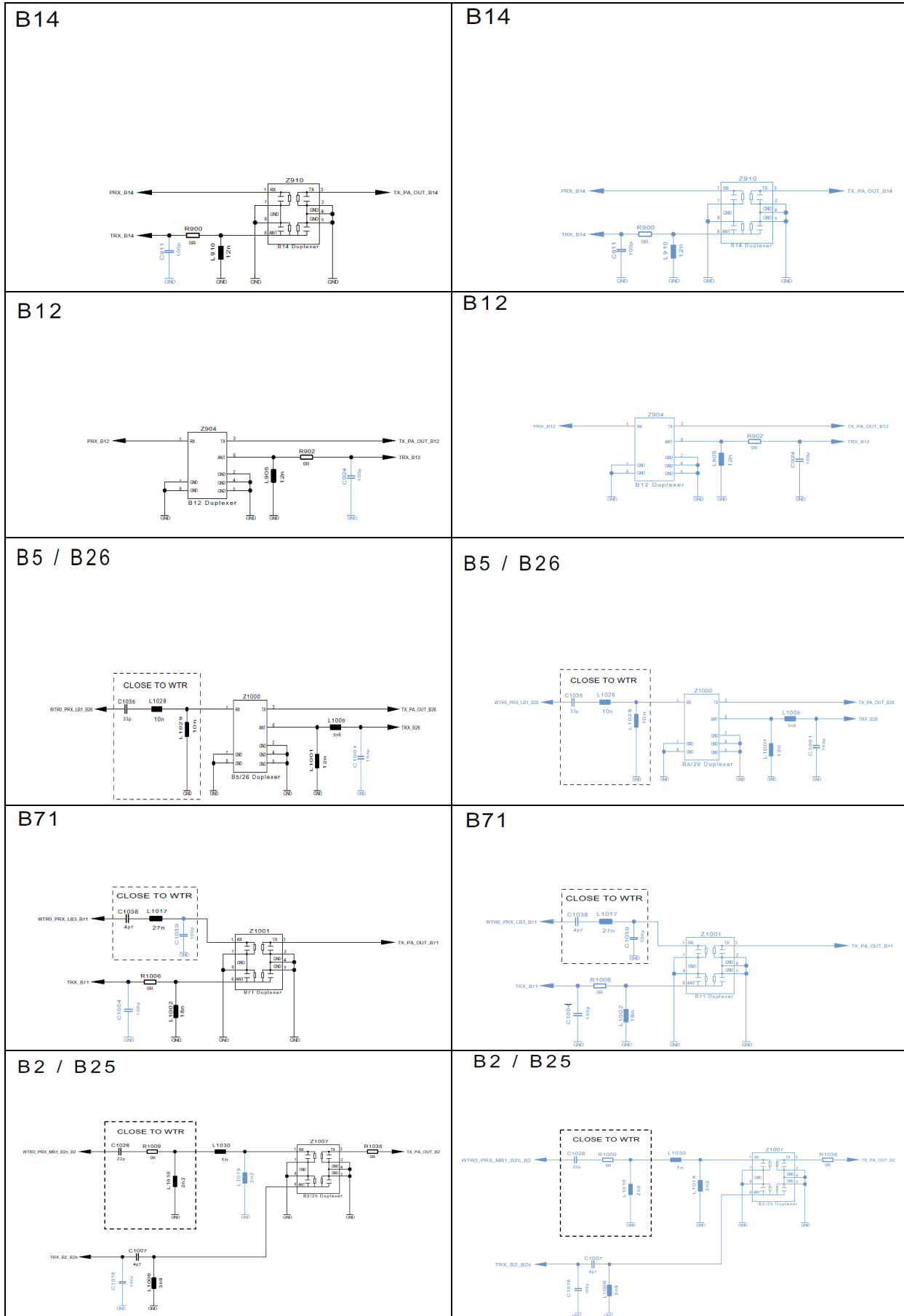
This section describes the differences on the RF part.

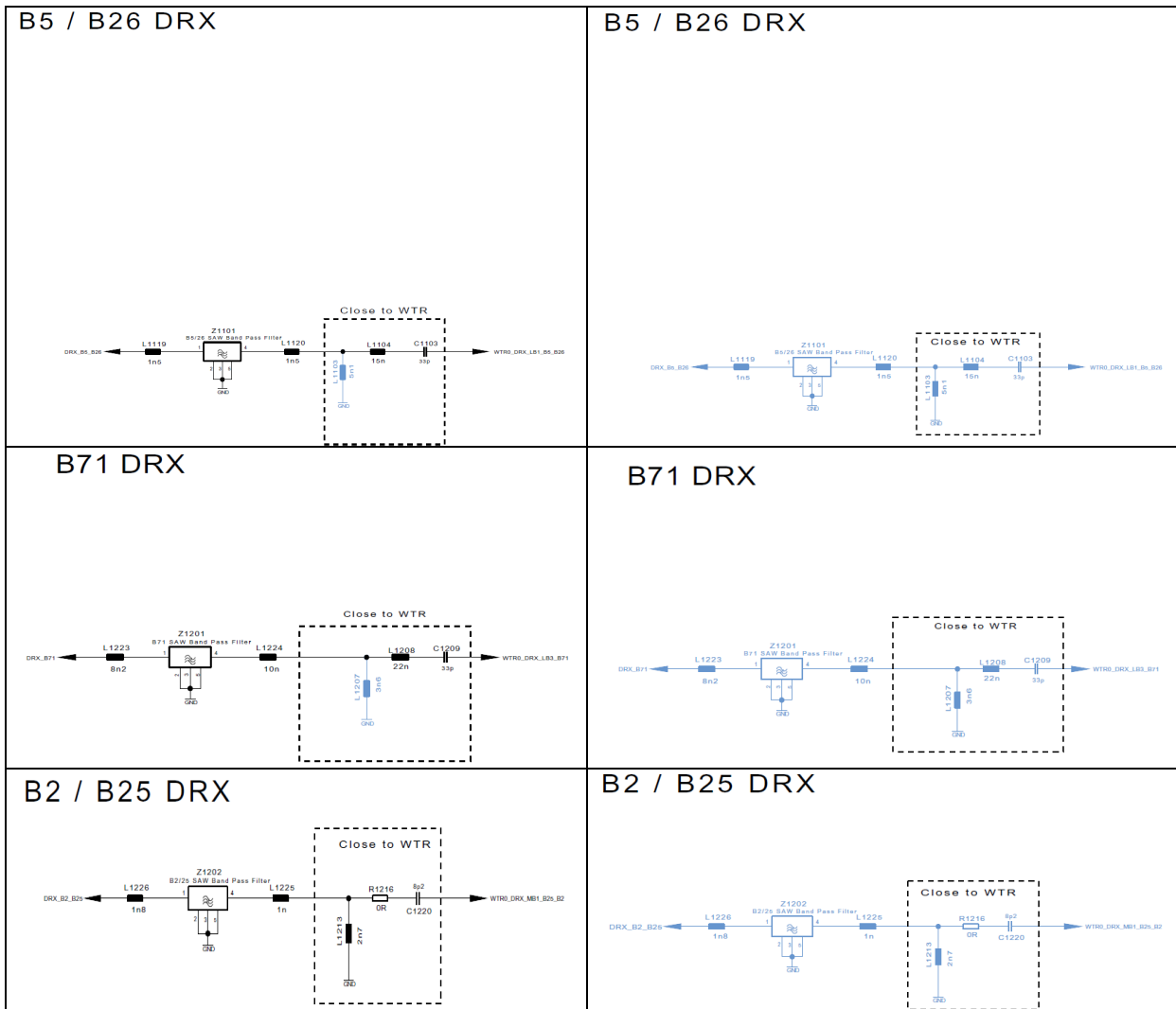
Schematic Differences

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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