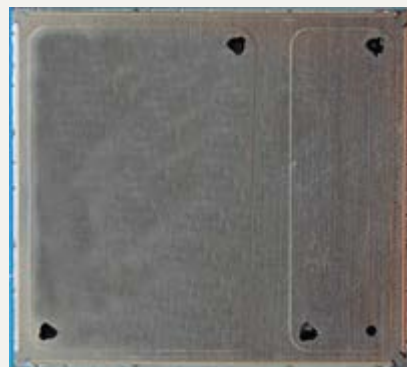


# HW Differences between Cinterion<sup>®</sup> ALAS5-AM Rev. 1.2 and ALAS5V- US Rev. 1.2

Delta Report

Version: 01  
DocID: ALAS5-AM\_rev12\_ALAS5V-US\_rev12\_hw\_delta\_v01



Document Name: **HW Differences between Cinterion® ALAS5-AM Rev. 1.2 and  
ALAS5V-US Rev. 1.2**

Version: **01**

Date: **June 24, 2019**

DocId: **ALAS5-AM\_rev12\_ALAS5V-US\_rev12\_hw\_delta\_v01**

Status: **Confidential / Released**

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# 1 Supported RF Bands

This document is valid for the following products:

**ALAS5-AM**  
**ALAS5V-US**

Both products use the same PCB.

ALAS5-AM is the “general” variant, containing all available RF band combinations, whereas ALAS5V-US uses only a subset of RF bands. The following table shows the available RF band combinations.

The respective components of the unused RF bands are not populated.

	<b>ALAS5-AM</b>	<b>ALAS5V-US</b>
850 MHz (GSM / B5)	X	X
900 MHz (GSM / B8)	X	X
1800 MHz (GSM / B3)	X	X
1900 MHz (GSM / B2)	X	X
Bd2 (FDD-LTE, HSPA)	X	X
Bd4 (FDD-LTE, HSPA)	X	X
Bd5 (FDD-LTE, HSPA)	X	X
Bd7 (FDD-LTE)	X	
Bd12 (FDD-LTE)	X	X
Bd13 (FDD-LTE)	X	
Bd28 (FDD-LTE)	X	
Bd29 (FDD-LTE, DL only)	X	
Bd30 (FDD-LTE, DL only)	X	
Bd66 (FDD-LTE)	X	X
GNSS	X	X

## 2 Floorplan of ALAS5-AM Rev. 1.2

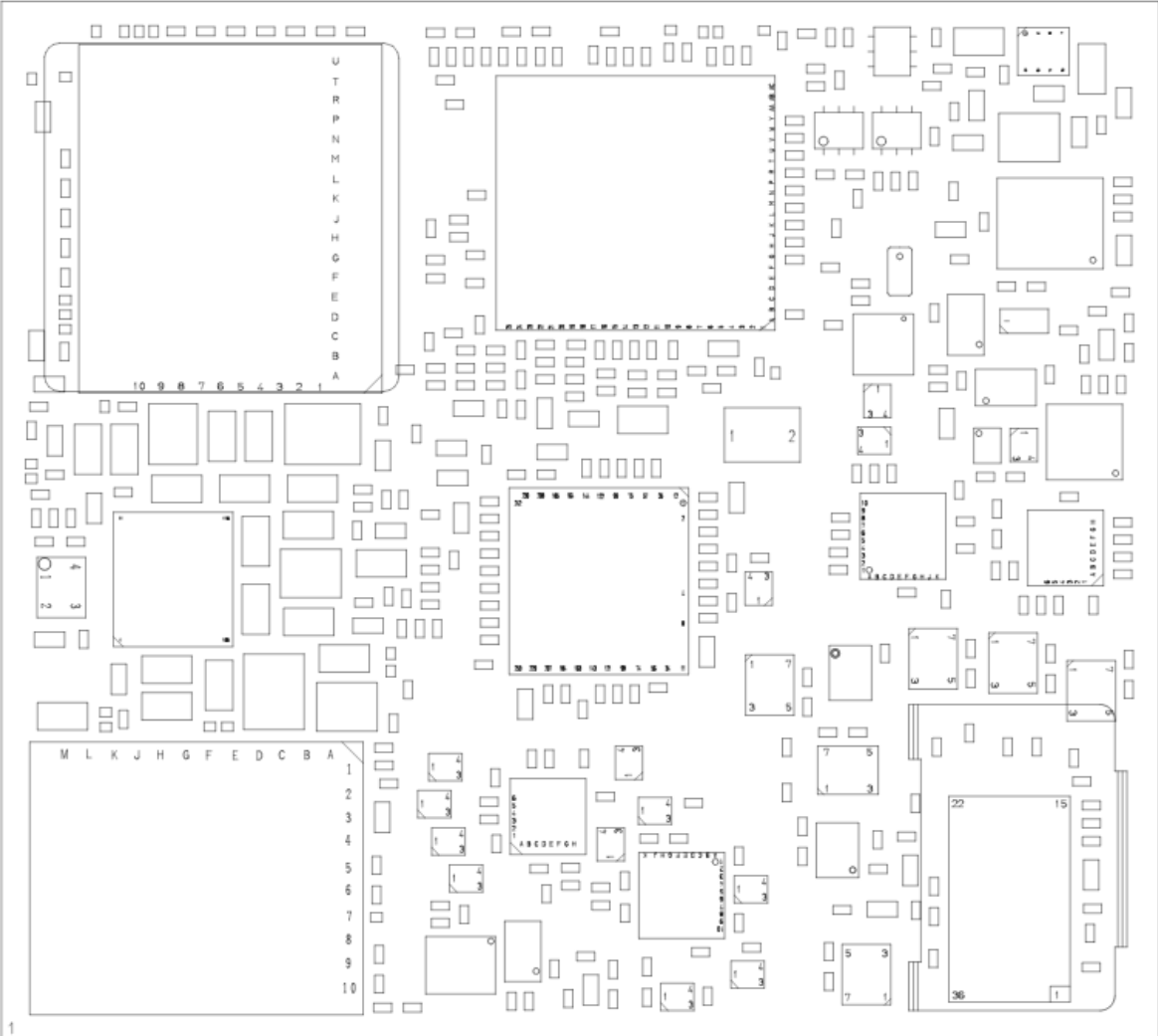


Figure 1: Floorplan ALAS5-AM

### 3 Floorplan of ALAS5V-US Rev. 1.2

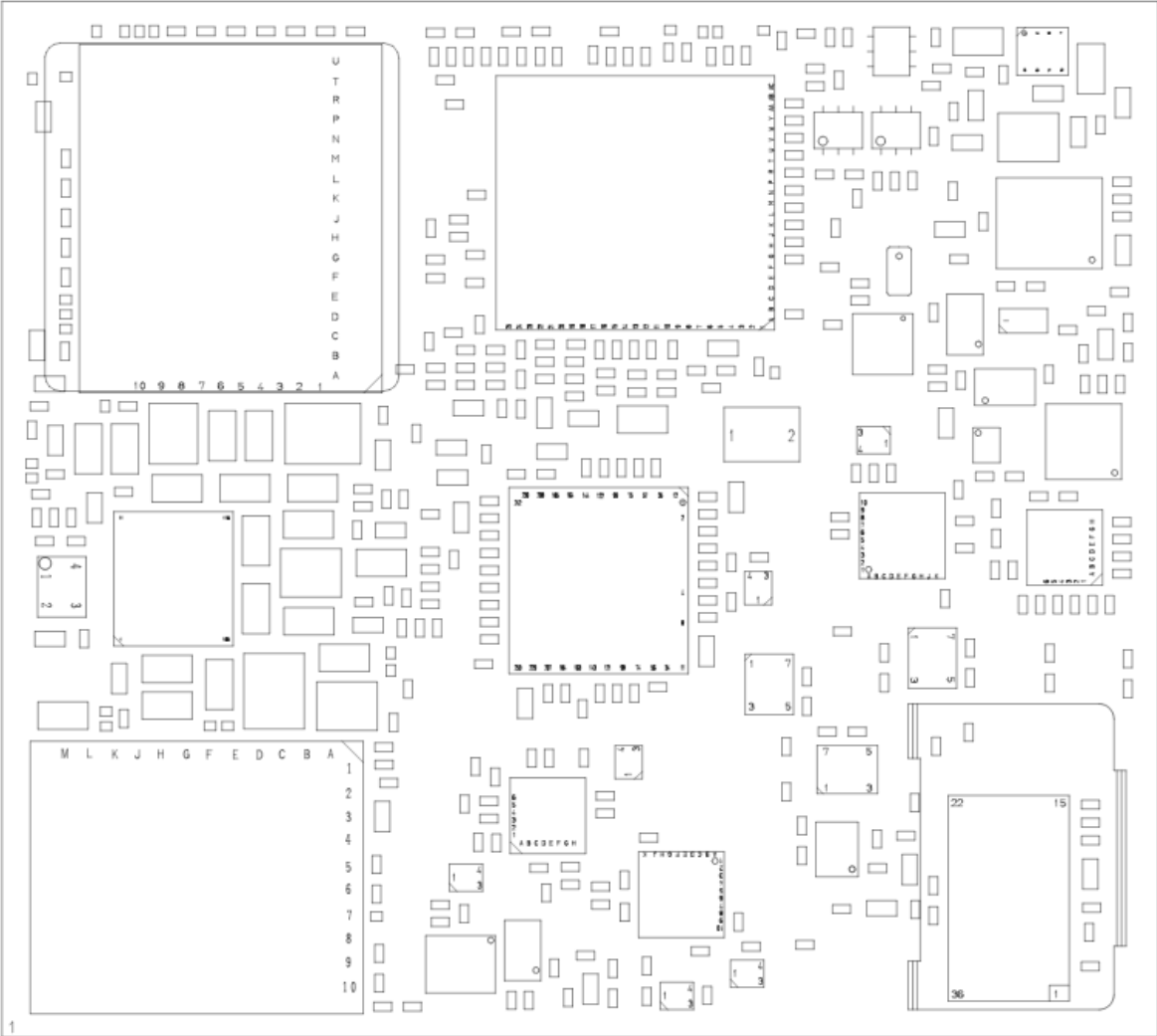


Figure 2: Floorplan ALAS5V-US

### 3.1 Schematic Differences to ALAS5-AM

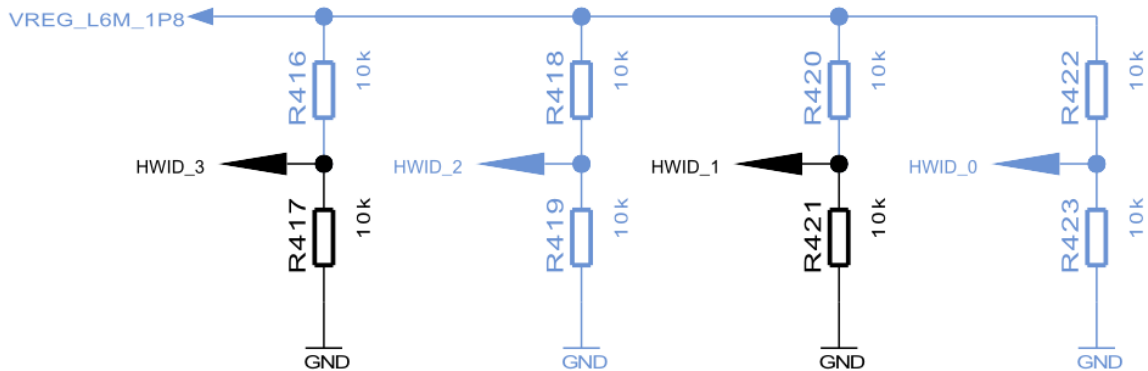
The below sections describe the schematic differences between ALAS5V-US and ALAS5-AM.

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

#### 3.1.1 Different Hardware Identification

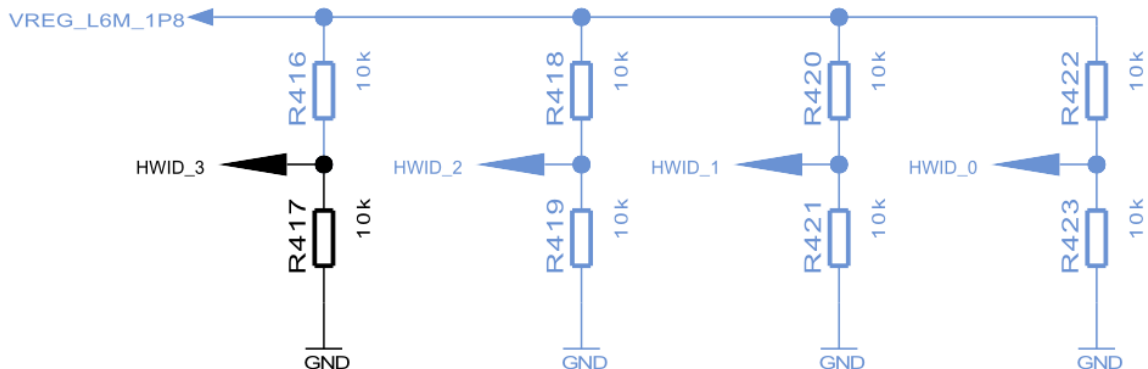
ALAS5V-US:

### HW-ID



ALAS5-AM:

### HW-ID



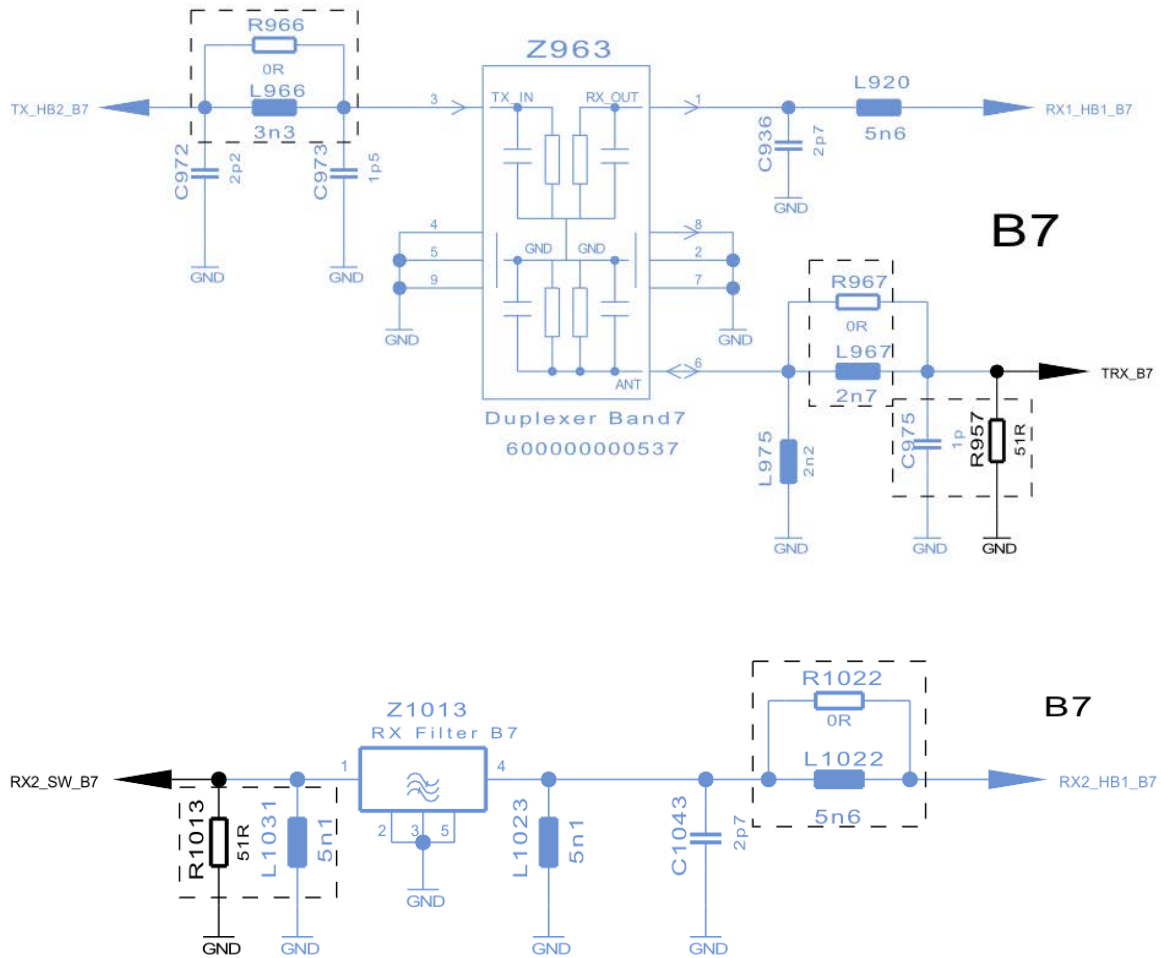
**Affected test scope:** No impact on GCF, PTCRB, FCC, R&TTE.



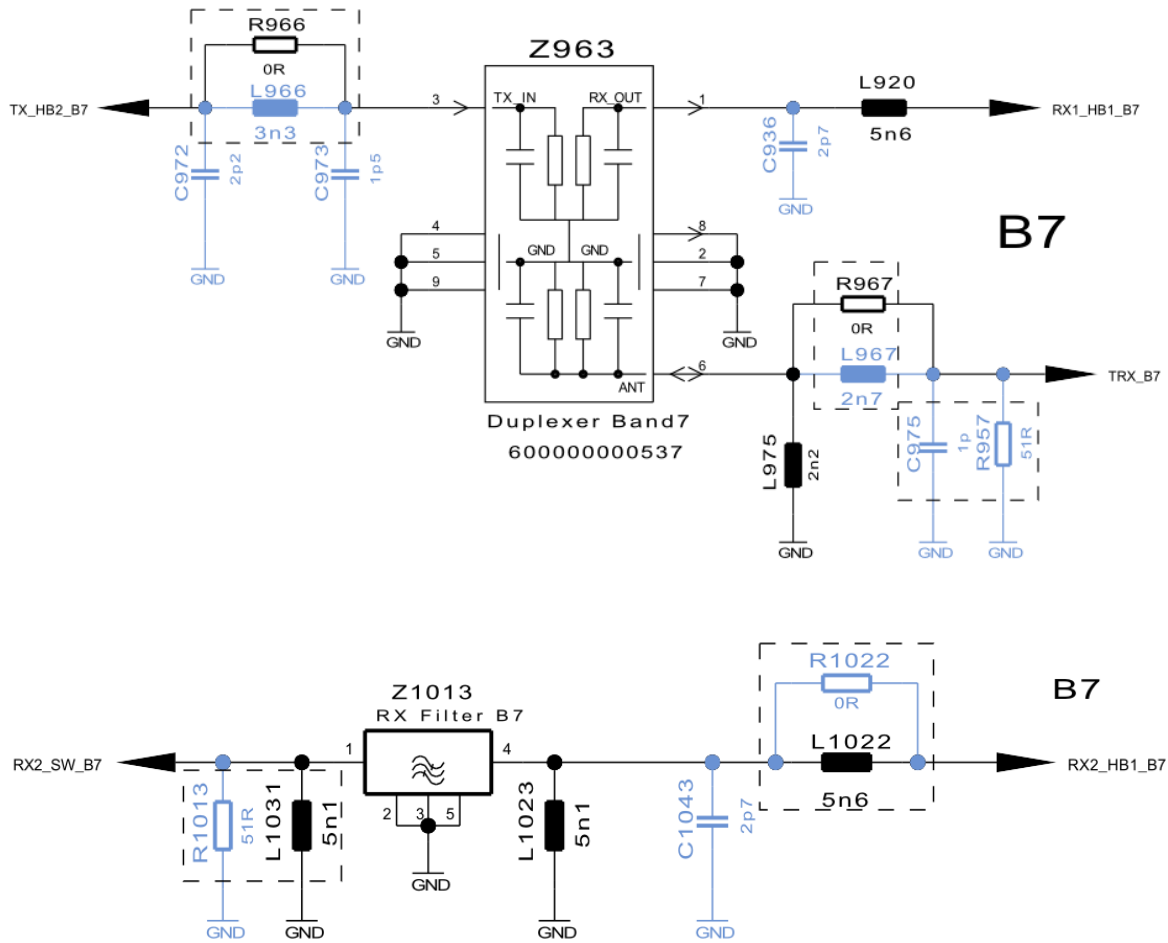
### 3.1.2 Band 7 Removed

A duplexer, a band filter, and matching elements were removed/replaced on ALAS5V-US. Also, LNA inputs now open received termination resistors.

ALAS5V-US:



ALAS5-AM:

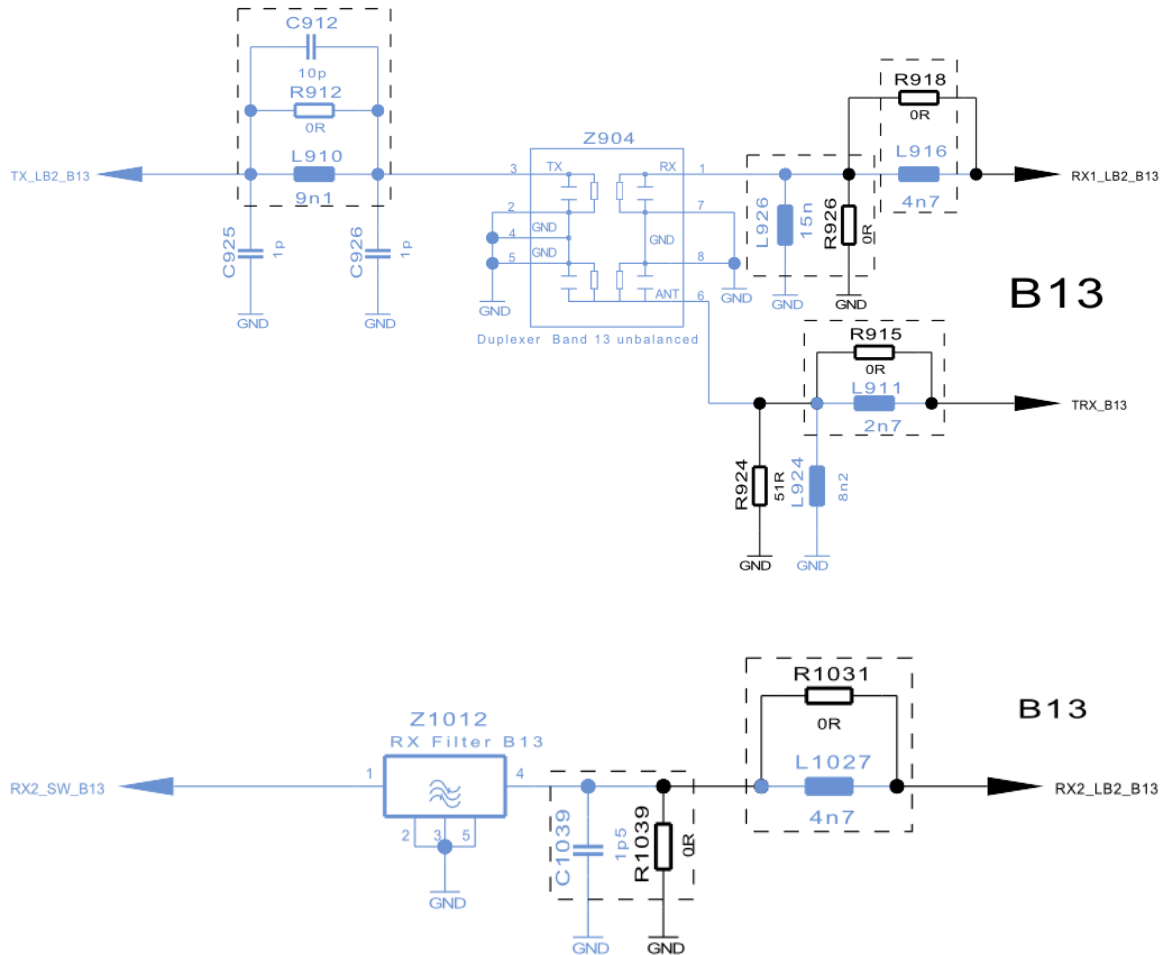


**Affected test scope:** No impact on GCF, PTCRB, FCC, R&TTE.

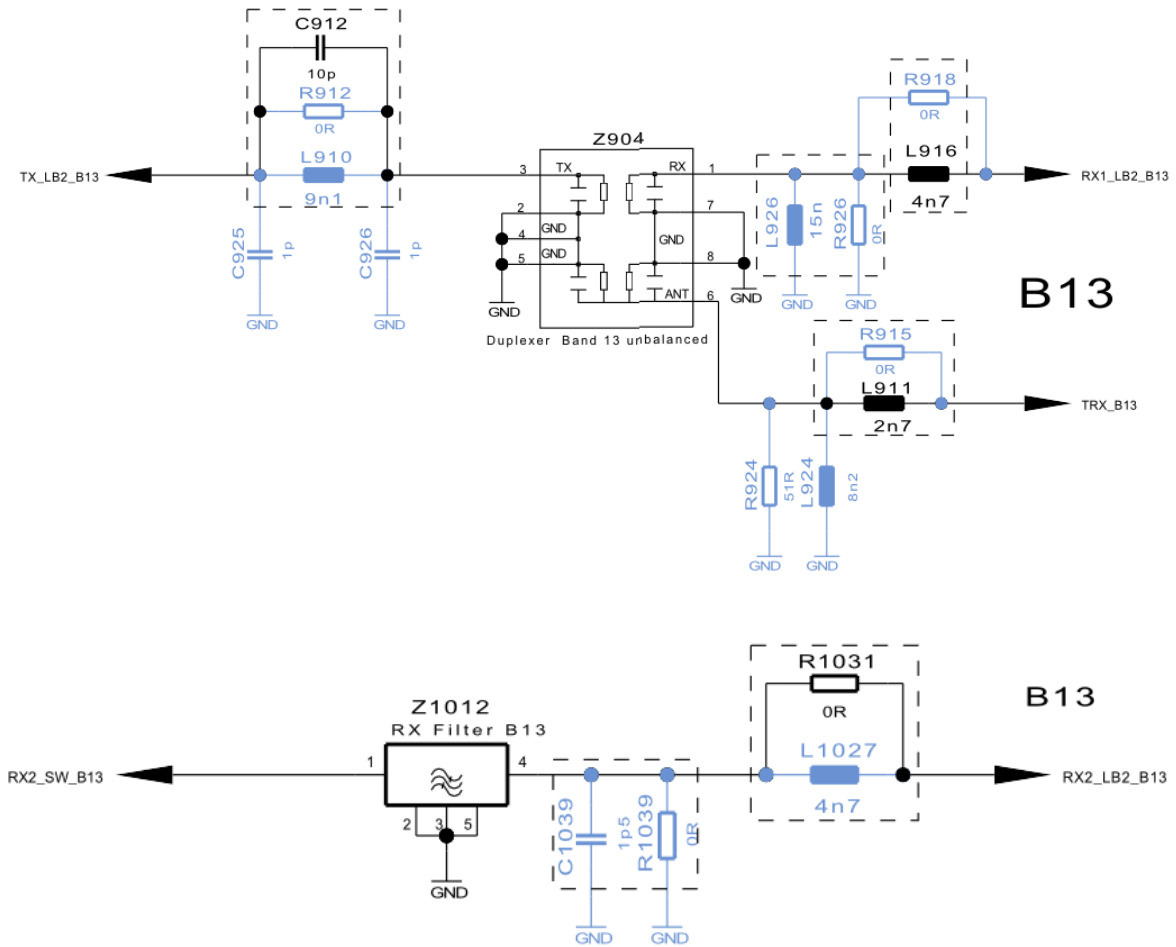
### 3.1.3 Band 13 Removed

A duplexer, a band filter, and matching elements were removed/replaced on ALAS5V-US. Also, LNA inputs now open received termination resistors.

ALAS5V-US:



ALAS5-AM:

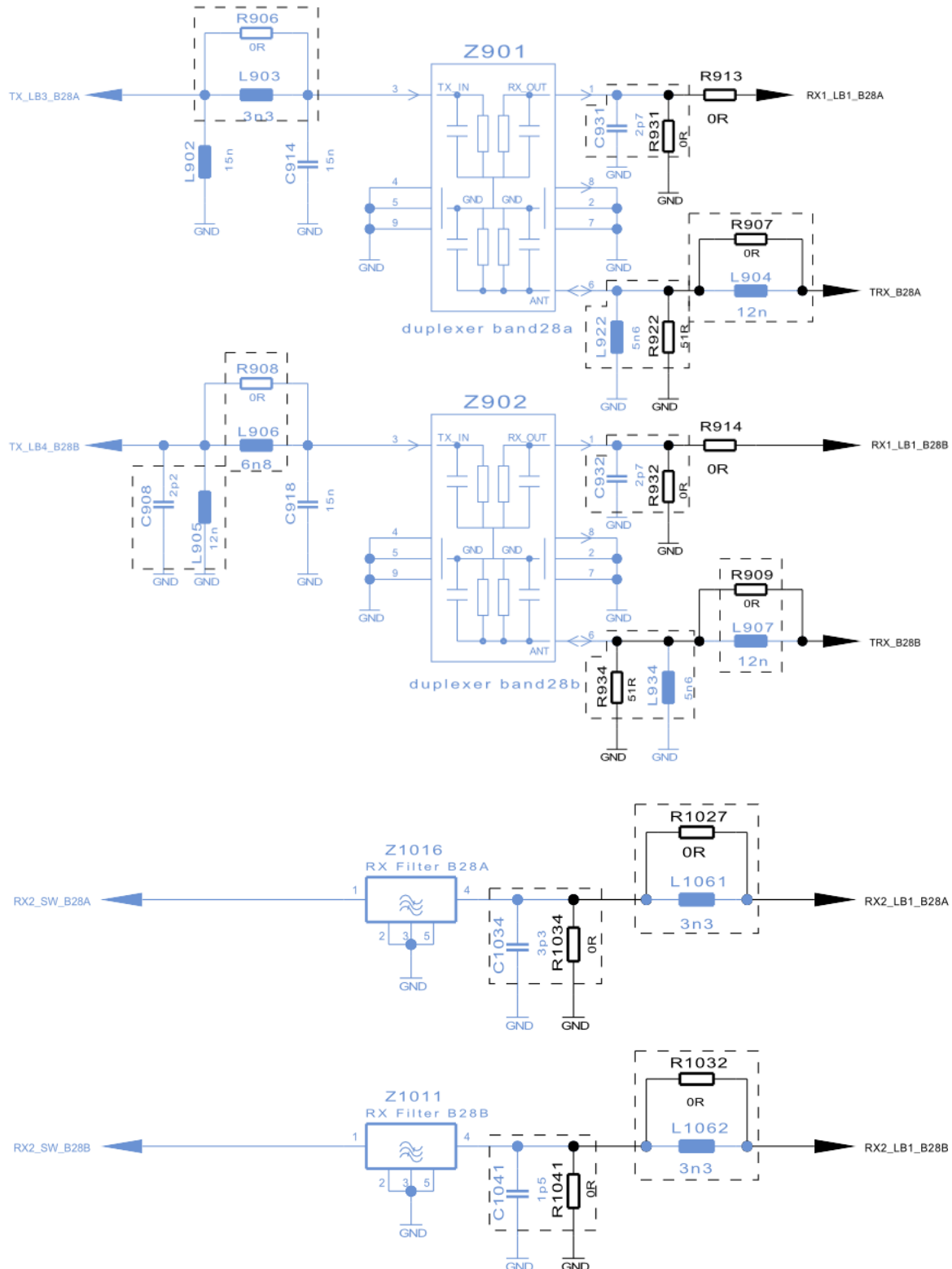


**Affected test scope:** No impact on GCF, PTCRB, FCC, R&TTE.

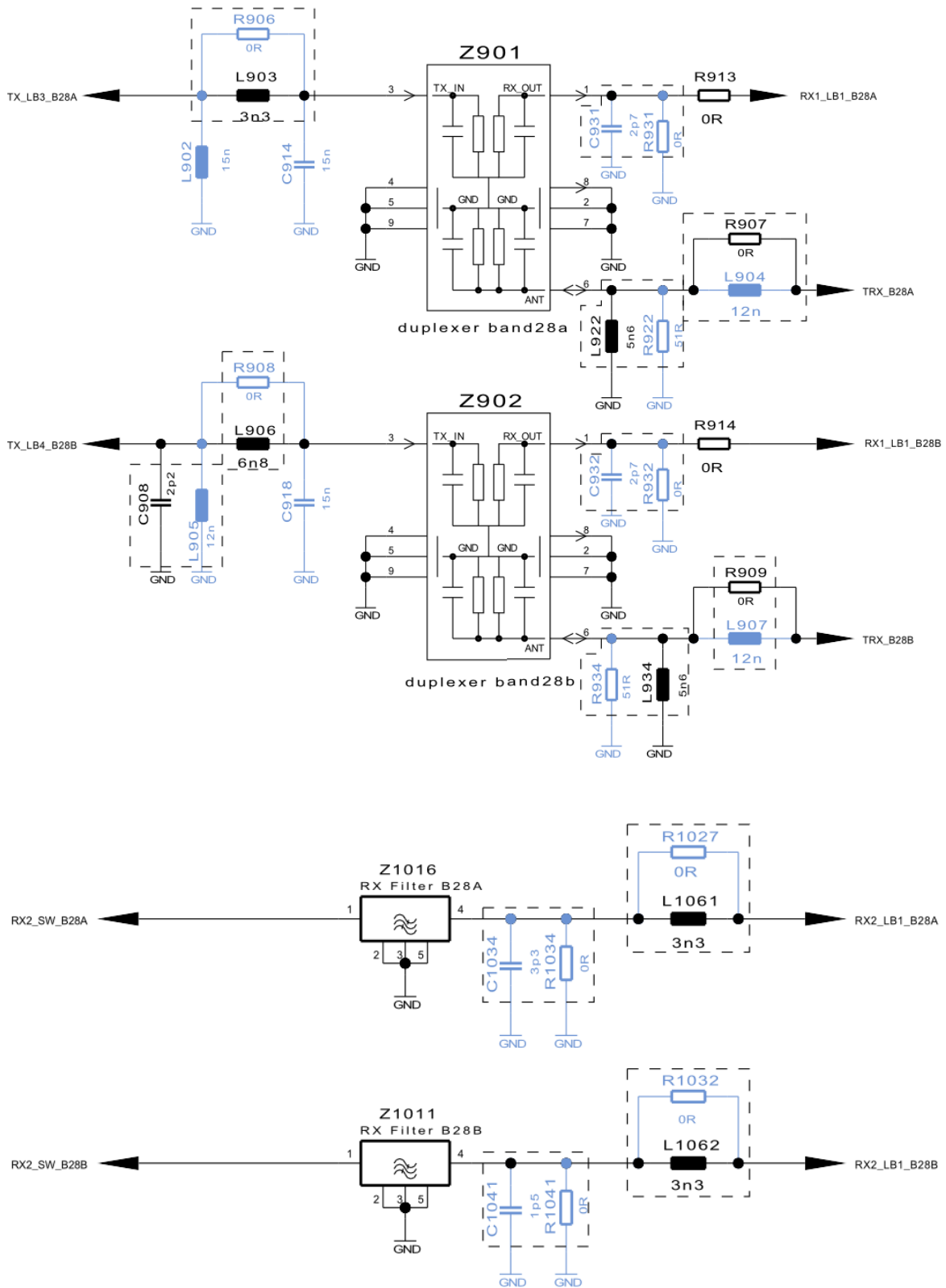
### 3.1.4 Band 28 Removed

Duplexers, band filters, and matching elements were removed/replaced on ALAS5V-US. Also, LNA inputs now open received termination resistors.

ALAS5V-US:



ALAS5-AM:

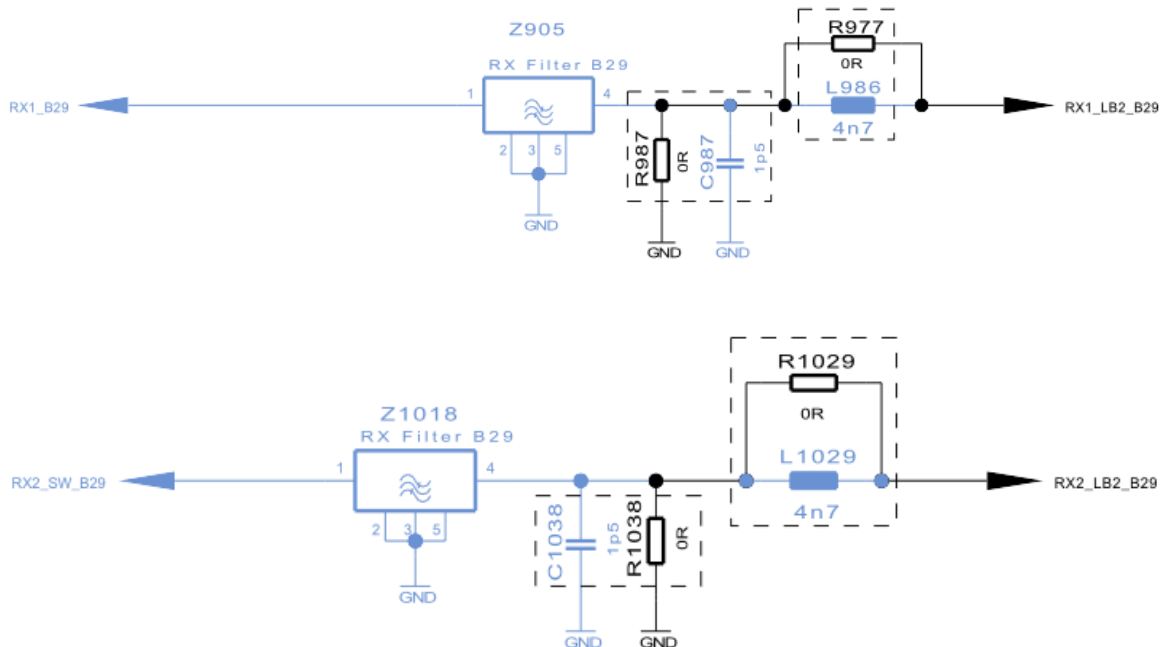


**Affected test scope:** No impact on GCF, PTCRB, FCC, R&TTE.

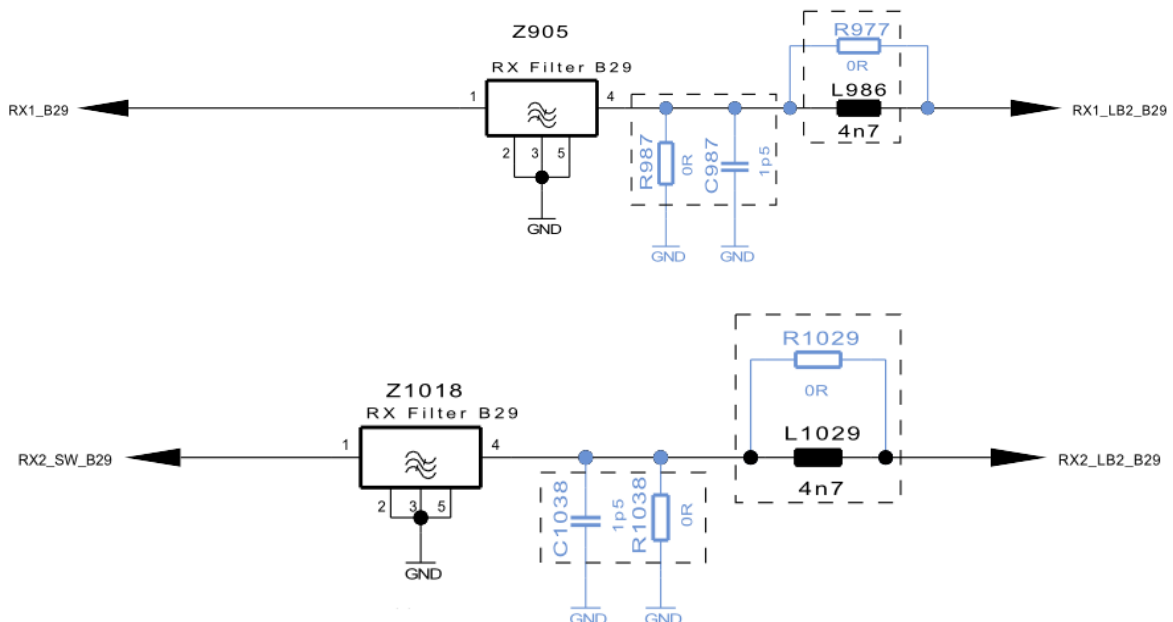
### 3.1.5 Band 29 Removed

Band filters and matching elements were removed/replaced on ALAS5V-US. Also, LNA inputs now open received termination resistors.

ALAS5V-US:



ALAS5-AM:

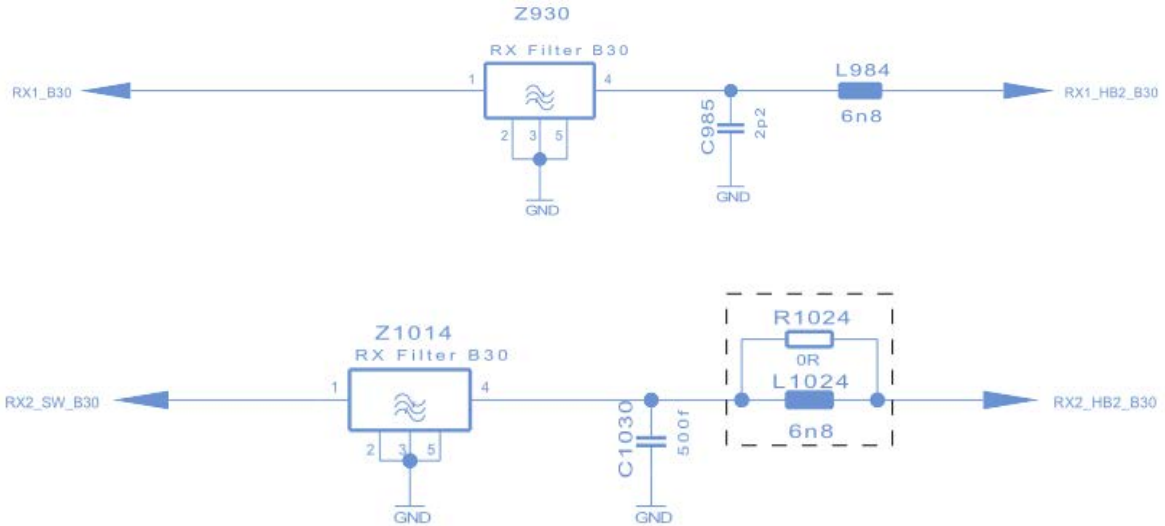


**Affected test scope:** No impact on GCF, PTCRB, FCC, R&TTE.

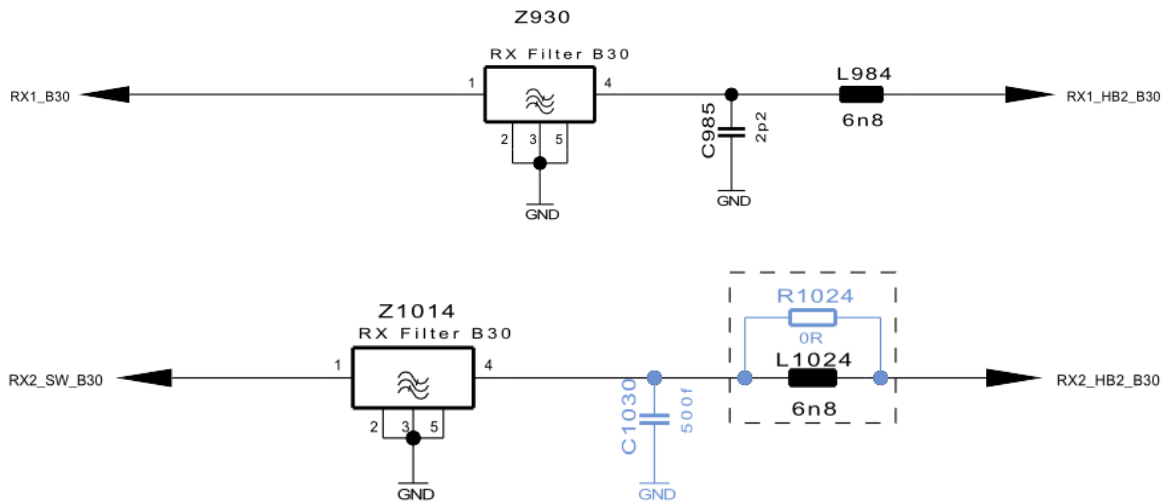
### 3.1.6 Band 30 Removed

Band filters and matching elements have been removed on ALAS5V-US.

ALAS5V-US:



ALAS5-AM:



**Affected test scope:** No impact on GCF, PTCRB, FCC, R&TTE.



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