140065
SFP loop back adapter

Modification Instructions
0 TABLE OF CONTENTS

1 PRECAUTIONS ................................................................................. 1-1
1.1 Before use ....................................................................................... 1-1
1.2 Attention ......................................................................................... 1-1
1.3 Recommendations .......................................................................... 1-1

2 MODIFICATION .................................................................................. 2-2
2.1 Required material ........................................................................... 2-2
2.2 Step 1 ............................................................................................... 2-3
2.3 Step 2 ............................................................................................... 2-4
2.4 Step 3 ............................................................................................... 2-4
2.5 Step 4 ............................................................................................... 2-5
2.6 Step 5 ............................................................................................... 2-5
2.7 Step 6 ............................................................................................... 2-5
2.8 Step 7 ............................................................................................... 2-5
2.9 Step 8 ............................................................................................... 2-6
2.10 Step 9 ............................................................................................. 2-6
2.11 Step 10 .......................................................................................... 2-6
REVISION HISTORY

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<th>Rev.</th>
<th>Prep. by</th>
<th>Comment</th>
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<th>To</th>
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1 PRECAUTIONS

1.1 Before use

This document describes the modification of a MOLEX Small Form-Factor Pluggable (SFP) Loopback Adapter. The loopback adapter is used during Production Test of the White Rabbit switch. The modification is necessary to detect the adapter properly when inserted in the switch.

1.2 Attention

- the SFP module is sensitive to electrostatic discharges, take precautions.
- keep the module away from water or grease etc.

1.3 Recommendations

Read this instruction with attention before starting the modification. Keep this instruction in a safe place for reference.
2 MODIFICATION

2.1 Required material

1: MOLEX Small Form-Factor Pluggable (SFP) Loopback Adapter
   Part Number: 74720-0501

2: Wire-wrap wire

3: Soldering iron and wire solder

4: Tweezer

5: Table top drilling machine

6: Drill 2 mm

7: M2 screw with countersink Philips head. 10 mm

8: M2 tap

9: Combined drill/Countersink M1.8

10: Small Philips screw driver

11: Thread locking or sealing lacquer
2.2 **Step 1**

- Remove the black plastic latch release from the lower lid of the module by bending the outer arms apart.
  ! Be sure that the spring under the release will not jump away !

- Drill from the bottom side in the two rivets until they become loose.

- Remove the rivets and lift up the upper lid.
  ! Be careful because the PCB inside the module becomes then loose also !

![Diagram of Step 1](image.png)

Module after Step 1. (Black plastic latch release not shown)
2.3 **Step 2**

- Take the PCB from the module.

2.4 **Step 3**

With the soldering iron and the tweezer remove resistor R1 on the TOP side of the PCB. See photo:
2.5 Step 4

Using the soldering iron and wire solder make a connection with the wire wrap wire between the two vias indicated below.

![Connection between two vias](image)

2.6 Step 5

Tap with the M2 tap in the two holes for the rivets in the lower lid of the module.

2.7 Step 6

Drill with the M2 drill in the two holes for the rivets in the upper lid of the module.

2.8 Step 7

Countersink the two holes for the rivets in the upper lid of the module until the head of the screw fits.
2.9 **Step 8**

Place the PCB in the module and place the two lids on top of each other in their original manner.

2.10 **Step 9**

Place the two screws, using the locking lacquer and fasten them.

2.11 **Step 10**

Place the spring and the black plastic latch release again in their original manner.