Revision History

<table>
<thead>
<tr>
<th>Revision</th>
<th>Brief description of changes</th>
<th>Date of issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>First release</td>
<td>August 2015</td>
</tr>
</tbody>
</table>

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Customer Comments

If you have any difficulties using this guide, discover an error, or just want to provide some feedback, please send a message to Kontron. Detail any errors you find. We will correct the errors or problems as soon as possible and post the revised user’s guide on our website. Thank you.
Table of Contents

1 Product Compatibility Guide ........................................................................................................ 4
2 Peripherals .................................................................................................................................. 4
  2.1 QSFP+ Modules ....................................................................................................................... 4
    2.1.1 The base recommendations ................................................................................................. 4
    2.1.2 Active optical transceivers .................................................................................................. 4
    2.1.3 Passive copper cable assemblies ......................................................................................... 4
    2.1.4 Kontron tested peripherals ................................................................................................ 4
  2.2 SFP+ Modules ........................................................................................................................ 5
    2.2.1 The base recommendations ................................................................................................. 5
    2.2.2 Active optical transceivers ................................................................................................ 5
    2.2.4 Kontron tested peripherals ............................................................................................... 5
  2.3 SFP Modules ........................................................................................................................ 5
    2.3.1 The base recommendations ................................................................................................. 5
    2.3.2 Active optical transceivers ................................................................................................ 5
    2.3.3 CopperSFP Modules ......................................................................................................... 5
    2.3.5 Kontron tested peripherals ............................................................................................... 5
3 Field serviceable components ....................................................................................................... 6
  3.1 Battery .................................................................................................................................... 6

List of Tables

Table 1: Tested QSFP+ interconnections .......................................................................................... 4
Table 2: Tested SFP+ interconnections .......................................................................................... 5
Table 3: Tested SFP interconnections ............................................................................................ 5
Table 4: Suggested battery part numbers ....................................................................................... 6
1 Product Compatibility Guide

This document is intended to provide users of the SYMKLOUD MS2910 platform’s MSH8910 hub with guidelines for choosing peripherals or replaceable components as well as a list of models tested by Kontron.

2 Peripherals

2.1 QSFP+ Modules

The QSFP+ cage offers compatibility based on broad industry support.

2.1.1 The base recommendations

✓ Power class 1 (i.e. maximum 1.5W). Devices up to power class 4 are supported but MS2910 platform operating temperature will be limited.
✓ Industrial temperature range (module must support up to +85°C) is necessary for full MS2910 operating temperature support.
✓ XLPPI electrical interface or “limiting” modules only. “Linear” modules, for example 40GBASE-LRM modules, are not compatible.

2.1.2 Active optical transceivers

✓ Generally, 40GBASE-SR4 and 40GBASE-LR4 type modules are compatible.
✓ Split 40GBASE to 4x 10GBASE versions are also compatible. Please consult the MSH8910 documentation for more information about “port expansion”.

2.1.3 Passive copper cable assemblies

✓ Generally, 40GBASE-CR4 compliant type cable assemblies will be compatible.
✓ Split 40GBASE to 4x 10GBASE versions are also compatible. Please consult the MSH8910 documentation for more information about “port expansion”.

2.1.4 Kontron tested peripherals

Table 1: Tested QSFP+ interconnections

<table>
<thead>
<tr>
<th>Type</th>
<th>Manufacturer</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>40GBASE-SR4</td>
<td>Avago</td>
<td>AFBR-79EQDZ</td>
</tr>
<tr>
<td>40GBASE-SR4</td>
<td>Finisar</td>
<td>FTL410QD2C</td>
</tr>
<tr>
<td>40GBASE-CR4</td>
<td>FCI</td>
<td>10093084-2010LF</td>
</tr>
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</table>
2.2 SFP+ Modules

2.2.1 The base recommendations

✓ Power Level 1 (i.e. maximum 1.0W).
✓ Industrial temperature range (module must support up to +85°C) is necessary for full MS2910 operating temperature support.
✓ SFF 8431 electrical interface or “limiting” modules only. “Linear” modules, for example 10GBASE-LRM modules, are not compatible.

2.2.2 Active optical transceivers

✓ Generally, 10GBASE-SR and 10GBASE-LR type modules are compatible.

2.2.3 Passive copper cable assemblies

✓ Generally, 10GBASE-CR compliant type cable assemblies will be compatible.

2.2.4 Kontron tested peripherals

Table 2: Tested SFP+ interconnections

<table>
<thead>
<tr>
<th>Type</th>
<th>Manufacturer</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>10GBASE-SR</td>
<td>Avago</td>
<td>AFBR-709DMZ</td>
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<tr>
<td>10GBASE-SR</td>
<td>Finisar</td>
<td>FTLX8571D3BCL</td>
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<tr>
<td>10GBASE-CR</td>
<td>TE Connectivity</td>
<td>2032237-4</td>
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2.3 SFP Modules

2.3.1 The base recommendations

✓ Power Level 1 (i.e. maximum 1.0W).
✓ Industrial temperature range (module must support up to +85°C) is necessary for full MS2910 operating temperature support.

2.3.2 Active optical transceivers

✓ Generally, 1000BASE-SX and 1000BASE-LX type modules are compatible.

2.3.3 1000BASE-T “Copper SFP” Modules

✓ Generally Copper/SFP modules are supported in 1000BASE-X to 1000BASE-T media converter mode
✓ Support for the different line speeds 10/100 and 1000 has been tested with dedicated Finisar modules only. Please consult the MSH8910 documentation for more information about “sgmii mode”.

2.3.4 Passive copper cable assemblies

✓ Generally, 1000BASE-CX compliant type cable assemblies are compatible.

2.3.5 Kontron tested peripherals

Table 3: Tested SFP interconnections

<table>
<thead>
<tr>
<th>Type</th>
<th>Manufacturer</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000BASE-T</td>
<td>Finisar</td>
<td>FCLF-8520-3</td>
</tr>
<tr>
<td>1000BASE-T</td>
<td>Finisar</td>
<td>FCLF-8521-3</td>
</tr>
<tr>
<td>1000BASE-T</td>
<td>Finisar</td>
<td>FCLF-8522-3</td>
</tr>
</tbody>
</table>
3 Field serviceable components

3.1 Battery
The Shelf Management Controller of the MSH8910 has a battery backed time keeping function. If the battery is low, an event will be generated. Please refer to the MSH8910 documentation for further information about the System Event Log. The battery is socketed and thus can be replaced. Base recommendations for choosing a replacement:

- Lithium coin cell BR1225
- 3 Volt nominal
- 12.5mm diameter, 2.5mm depth
- 0°C to 70°C or better

Suggested manufacturer part numbers:

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panasonic</td>
<td>BR1225</td>
</tr>
<tr>
<td>Rayovac</td>
<td>BR1225</td>
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