

 norwia

# Quick Start guide for the MiniHUB System



 giving value

*The miniHUB frame uses the latest manufacturing and design technology plus a dash of innovative thinking to give the user a positive experience.*

*We would like to give you a brief run through on important facts and features that you should know before letting you loose on the miniHUB product.*

## The OUTSIDE of the frame

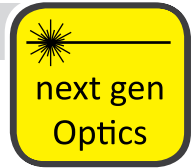
1. The front door on the miniHUB frames is a **“PUSH TO RELEASE”** mechanism. Please **do not** place excessive force by **“PULLING”** the door away from the unit. A gentle and even push from both sides of the frame towards the rear of the unit will release the door, you should hear a click sound when this is activated. The door is held in by side rails and will drop away from the miniHUB frame but stay attached. The door can be removed totally if required by pressing the left and right rails towards the center of the frame while holding the door up and pulling gently forward. Closing the door is identical to opening the door, **“PUSH TO CLOSE”**
2. PLEASE observe all ESD precautions when handling this unit and the electronics inside.
3. The miniHUB frame is supply with one external supply, a second supply can be purchased to provide full redundancy for mission critical applications. Norwia have designed the miniHUB system with a single supply voltage (+12 Vdc), but it is possible to use any DC supply's that can delivery between +12Vdc (60w) to +24Vdc. Mixed supplies can be used, ie, Battery or Mains driven supplies at the same time! These are hot swappable if a supply should fail.
4. The SYNC input will provide timing data to all cards in the system as long as all signals are of equal standard.

## The INSIDE of the frame

1. The miniHUB frame will hold 4 cards such as the OC-4B-SDI and has room for two passive devices such a 8 port CWDM modules or 2 if required for a larger CWDM system.
2. All frames are delivered with the RCONmini (Rack Controller) but the controller has limited function in a stand-a-lone mode. The RCONmini can be used later to provide SNMP functionality for control and monitoring and for Norwia's software application to enable the **“Power user mode”**. (see USER MANUAL)
3. The miniHUB has a specially designed card guide system called **“Click & Go”** this unique system allows for a positive locking of the card once inserted, without the use of screws, springs or handle only mechanisms. The card should be positioned between the slide rail while pushing slightly (1mm) to the right hand handle of the black card guide. Once the edge of the card is passed the point of the entry you can release this handle and then use the red handle to press the unit into its correct position. Once the card is pressed into position you should hear a **“Click”** sound, this mean you are in position and can **“go”** onto your next task. To release use the red handle to open the card guide lock and slide the card towards you.
4. To release RCONmini, press the extended portion of the PCB slightly down so its notch clears the top cover of the miniHUB frame. With the PCB slightly down pull the unit towards you.



## Auto SFP configuration



Just follow the examples contained in this manual to obtain the configurations you require. There are 2 basic rules when it comes to the Auto-configuration nature of the card. Use only Norwia authorized SFP's as these have gone through stringent quality control processes to deliver the best quality available.

### Rule 1

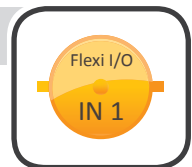
The SFP will decide the configuration of the unit in NON-controller mode

### Rule 2

DIP sx 1 on the OC-4B-SDI can be in two positions, "Link"(off)  or "Distribution"(on)  modes.

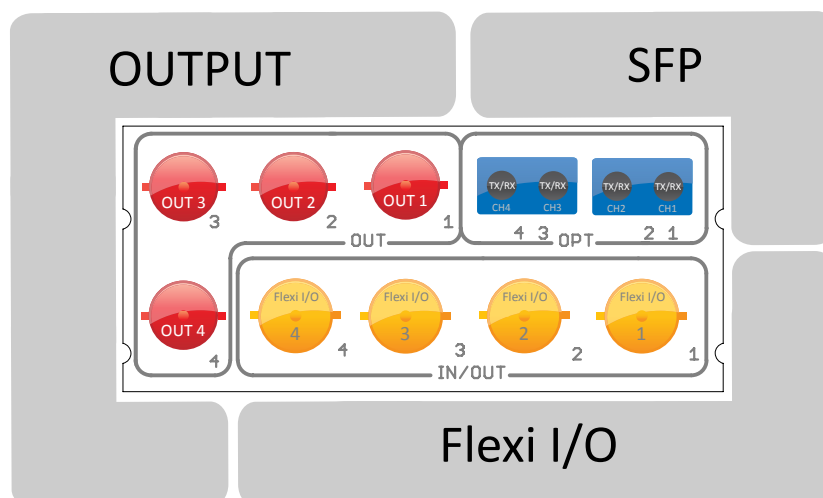
*So all you need to know is, What SFP you have and what position the DIP switch is in? THAT is EASY!*

## Flexi I/O Technology



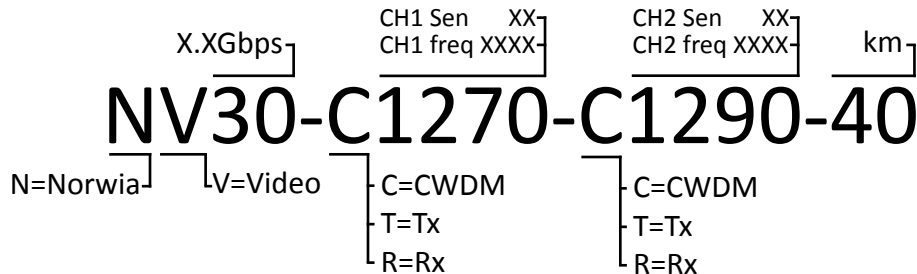
Norwia has seen the need to give more flexibility in a reduced backplane layout, using Flexi I/O technology means our customers gain unprecedented flexibility from a single card solution.

Four BNC on the backplane have Flexi I/O Technology, these are indicated by (IN/OUT) on the silk screen or the yellow BNC logo on the literature.



# Choosing the right SFP for your application

Norwia recommends that you survey the fiber infrastructure that you intent to use, the reason being is there can be many hidden factors that can hinder the distance obtainable. As we move to higher bandwidths these factors are amplified. The specifications below give a good estimate but by no means eliminate the needs to perform certain checks when purchasing a fiber optic system. Full specifications can found in the Norwia SFP and Optic guide.



## 1 Channel Tx



3G-SDI	HD-SDI	Model	Output power	Laser type
0-10km	0-20km	NV30-T1310-10	-2dBm (±2dB)	F-P
0-10km	0-20km	NV30-T1310-T1310-10	-2dBm (±2dB)	F-P
0-40km	0-80km	NV30-T1310-T1310-40	0dBm (+3dB/-0dB)	DFB
0-50km	0-80km	NV30-T1550-T1550-50	0dBm (+3dB/-0dB)	DFB

## 2 Channel Tx (WDM)



3G-SDI	HD-SDI	Model	Output power	Laser type
0-40km	0-70km	NV30-T1310-T1550-40	0dBm (+3dB/-0dB)	DFB

## Multi Channel Tx (CWDM)



3G-SDI	HD-SDI	Model	Output power	Laser type
0-40km	0-70km	NV30-C1270-C1290-40	0dBm (+3dB/-0dB)	DFB
0-40km	0-70km	NV30-C1310-C1330-40	0dBm (+3dB/-0dB)	DFB
0-40km	0-70km	NV30-C1350-C1370-40	0dBm (+3dB/-0dB)	DFB
0-40km	0-70km	NV30-C1390-C1410-40	0dBm (+3dB/-0dB)	DFB
0-40km	0-70km	NV30-C1470-C1490-40	0dBm (+3dB/-0dB)	DFB
0-40km	0-70km	NV30-C1510-C1530-40	0dBm (+3dB/-0dB)	DFB
0-40km	0-70km	NV30-C1550-C1570-40	0dBm (+3dB/-0dB)	DFB
0-40km	0-70km	NV30-C1590-C1610-40	0dBm (+3dB/-0dB)	DFB

## Receivers

3G-SDI	HD-SDI	Model	Sensitivity	Laser type
0-50km	0-50km	NV30-R20	-20dBm	PIN
0-50km	0-50km	NV30-R20-R20	-20dBm	PIN
0-80km	0-80km	NV30-R28	-28dBm	APD

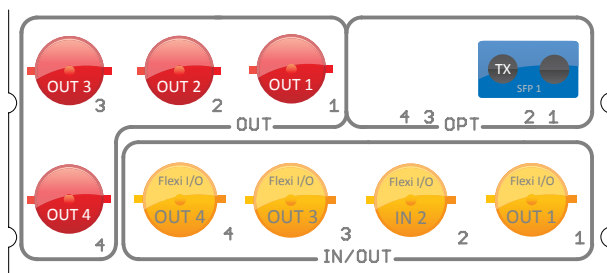
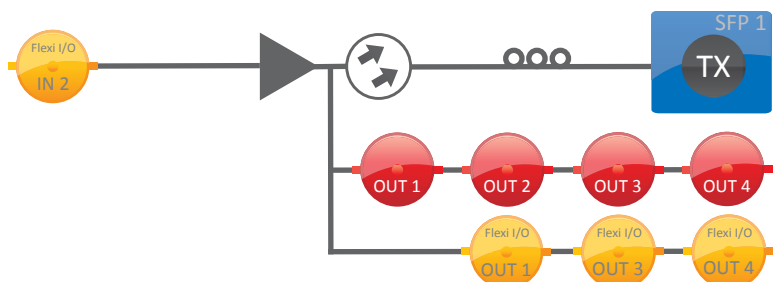
## Transceivers

3G-SDI	HD-SDI	Model	Output power/ Sensitivity	Laser type
0-10km	0-20km	NV30-T1310-R20-10	-2dBm ( $\pm 2$ dB) / -20dBm	PIN/F-P

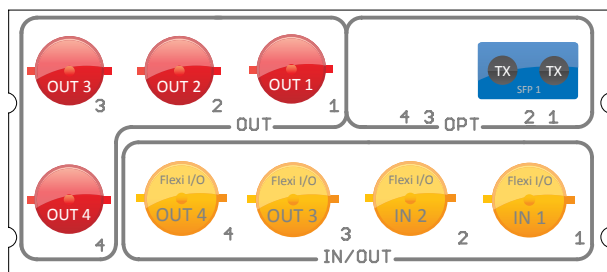
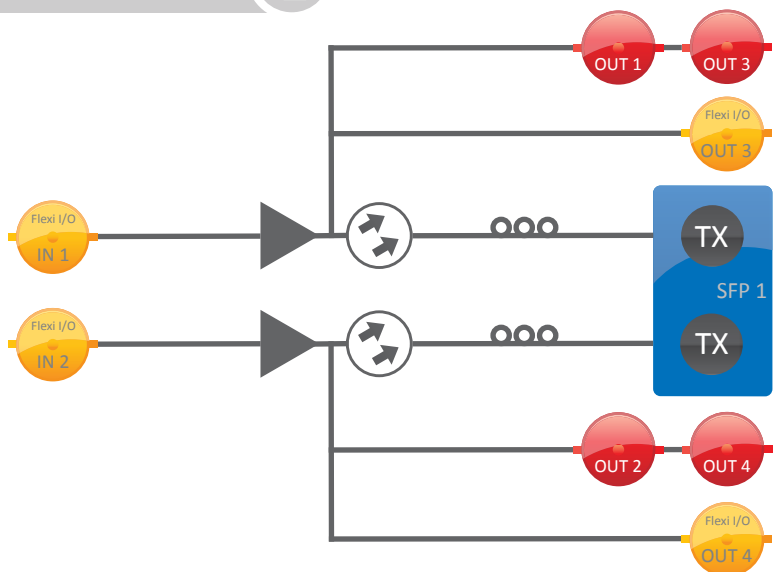


# Transmit

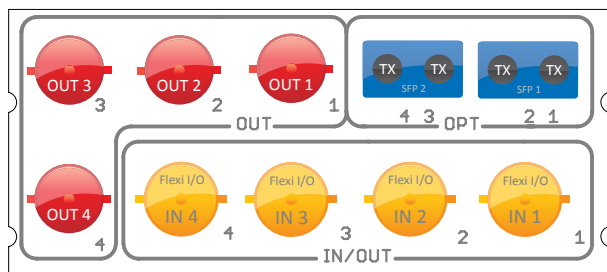
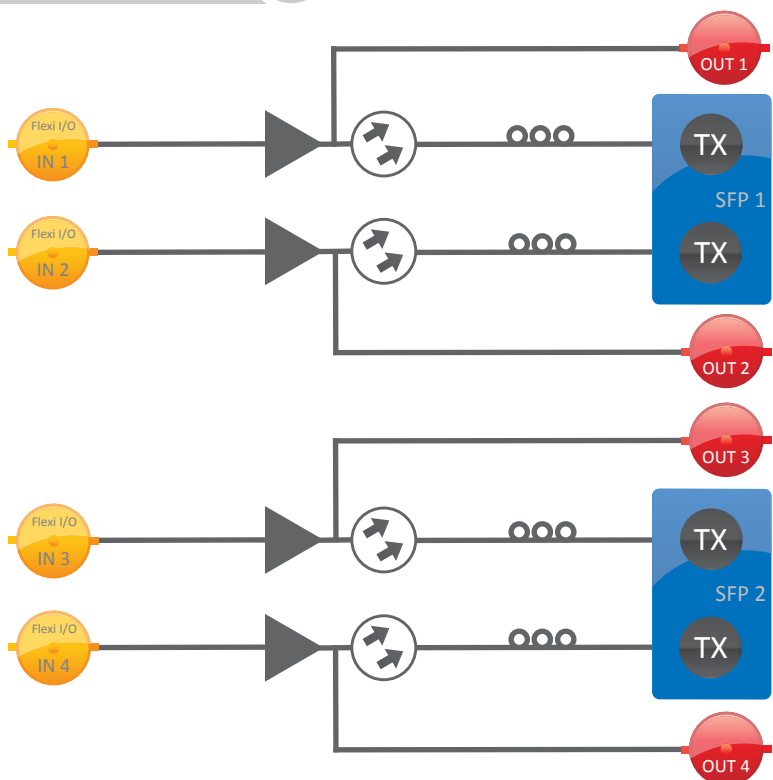
1 x Single TX SFP



1 x Dual TX SFP

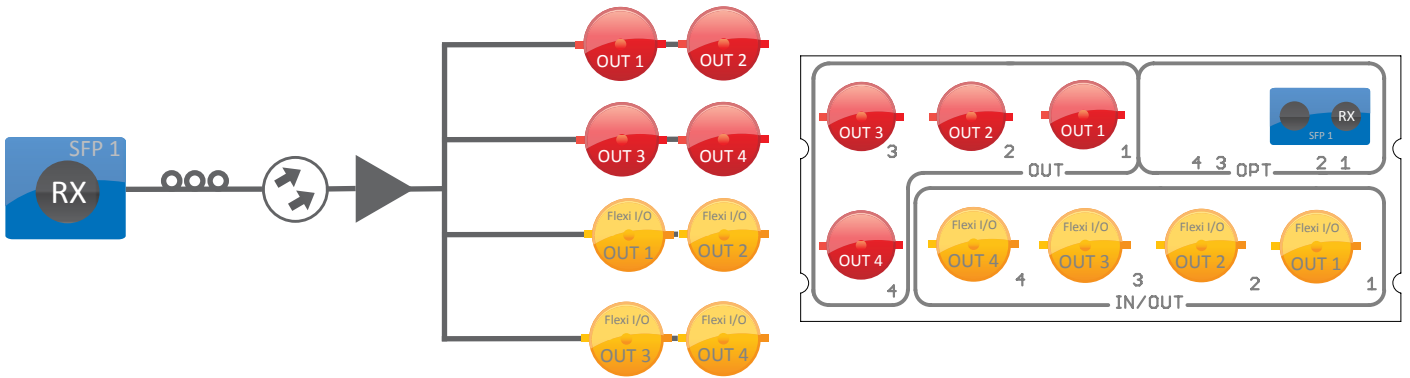


1 x Dual TX SFP

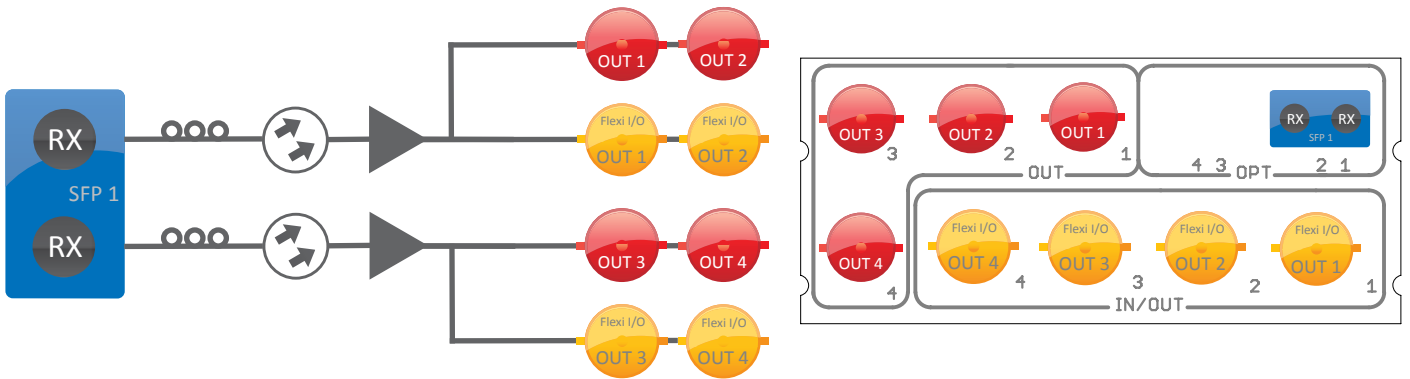


# Receive

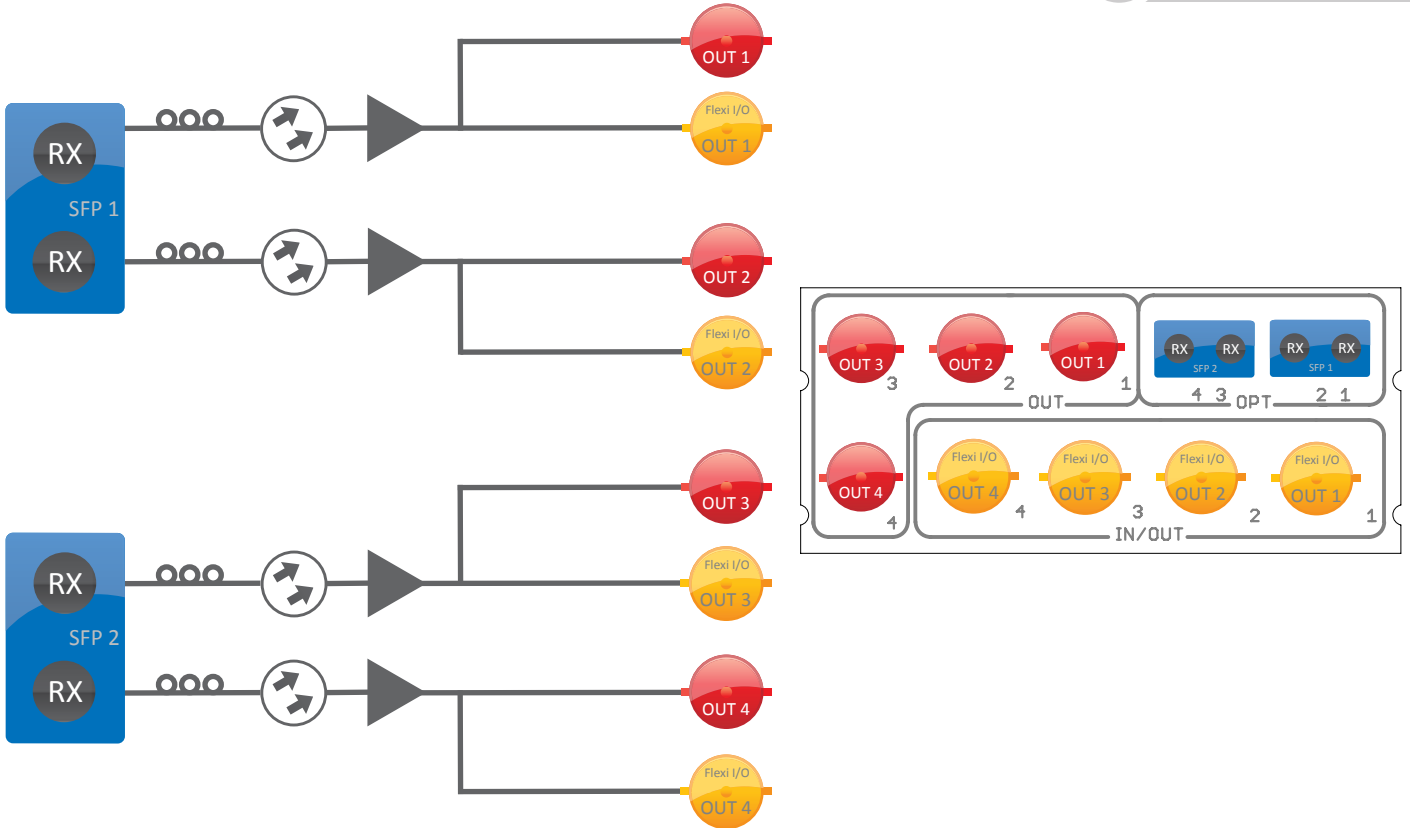
L 1 x Single RX SFP



L 1 x Dual RX SFP

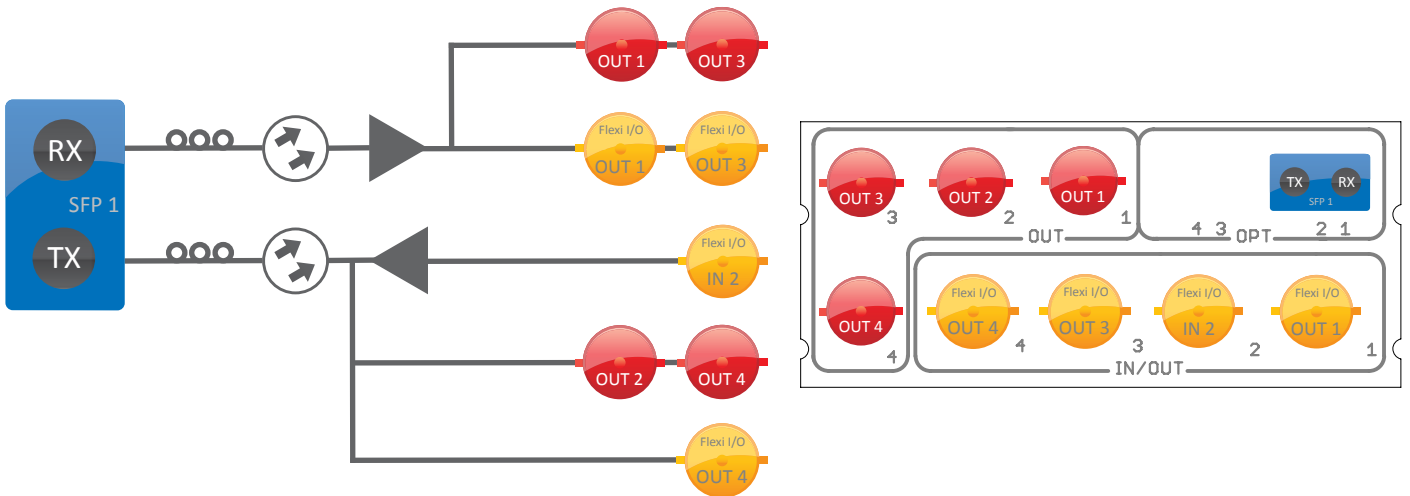


L 2 x Dual RX SFP

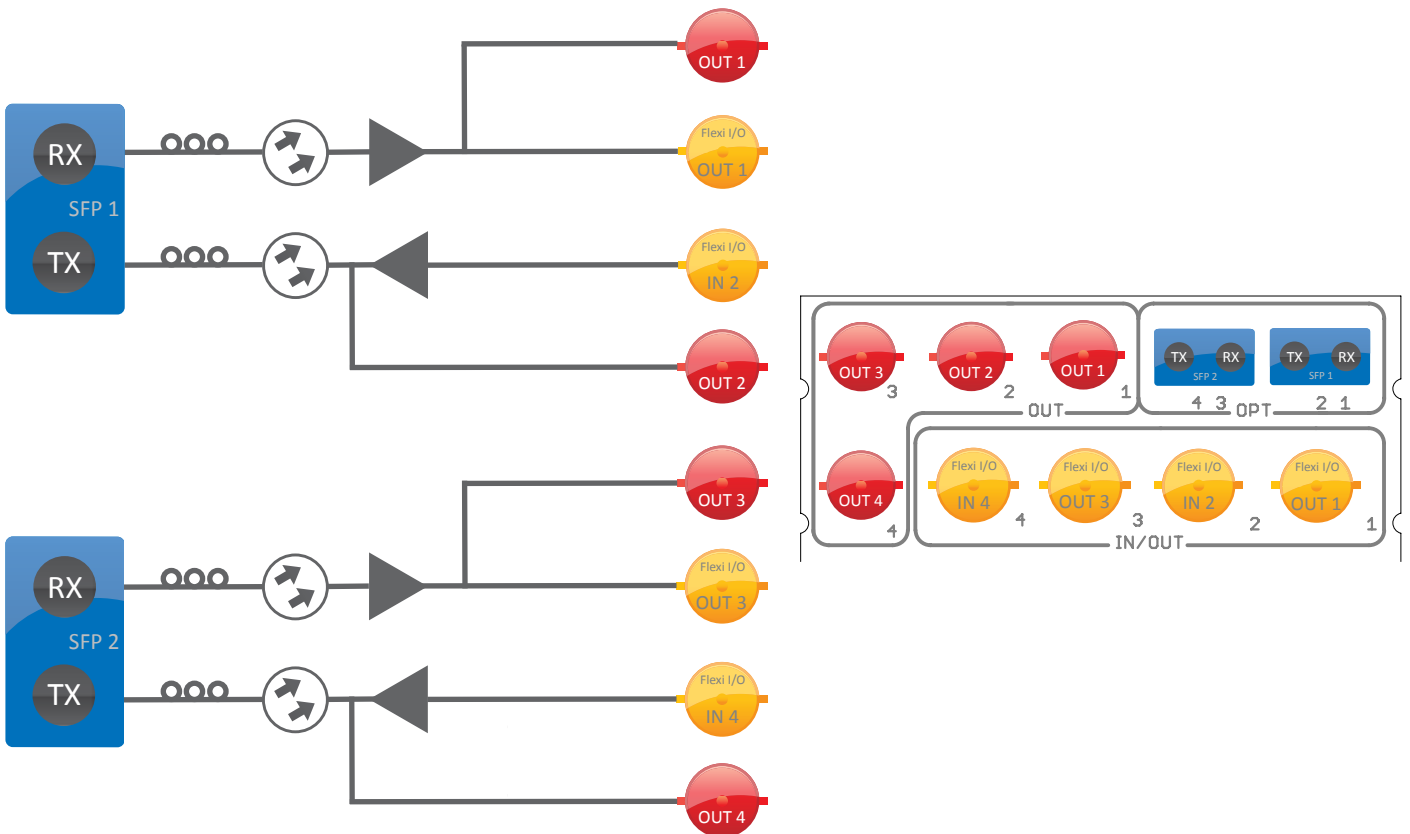


# Transceiver

1 x Transceiver SFP



2 x Transceiver SFP

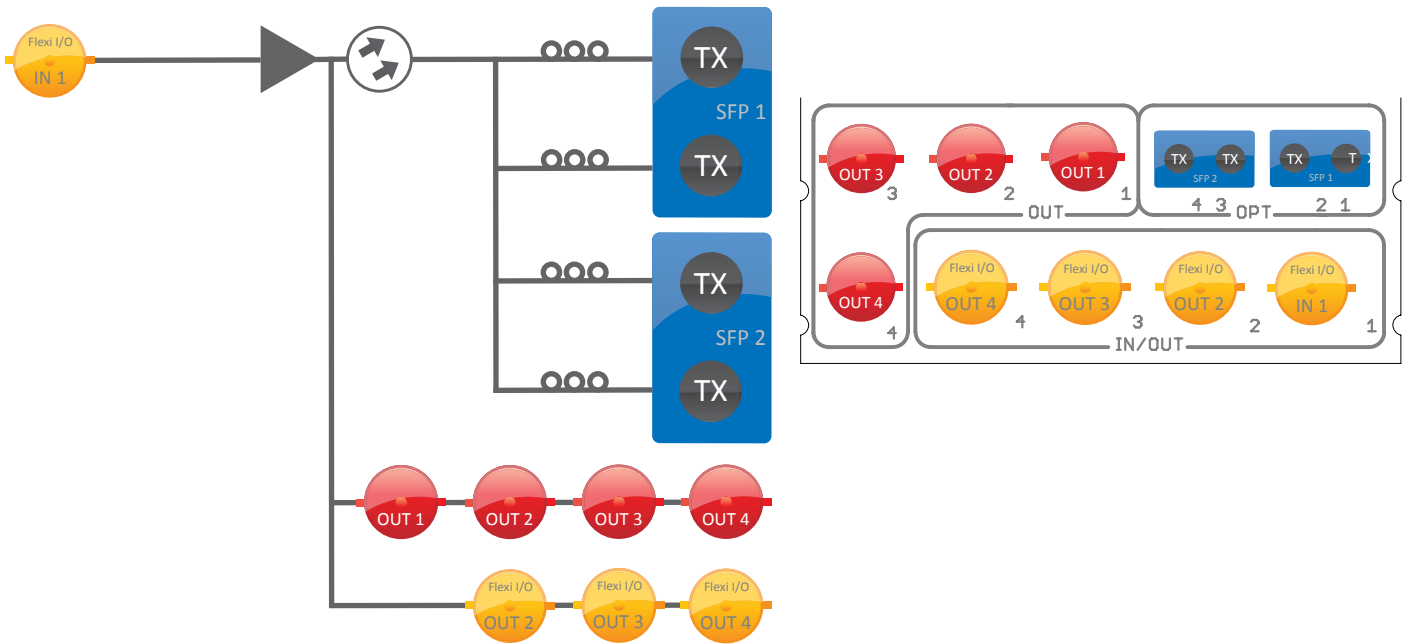




# Optical distribution

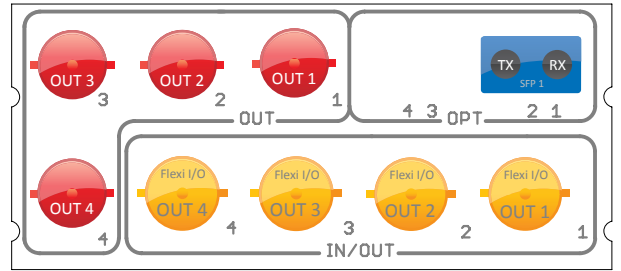
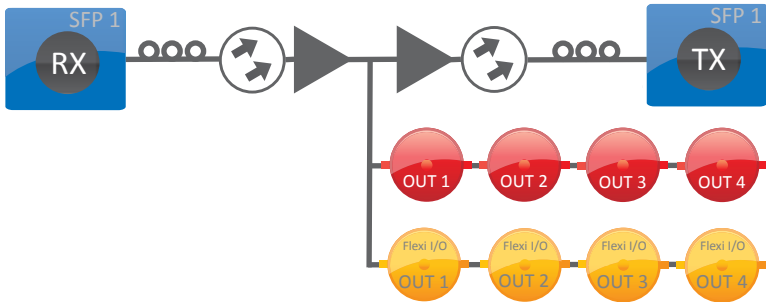
D

2 x Dual TX SFP

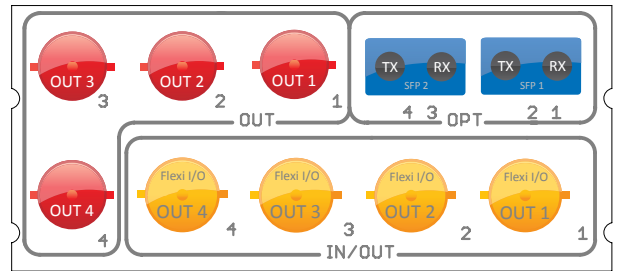
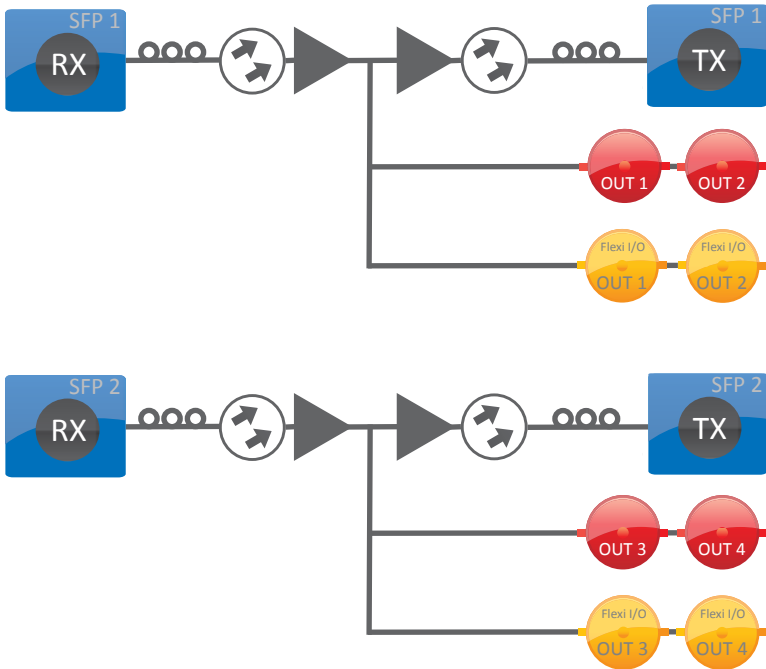


# Transponder

1 x Transceiver SFP

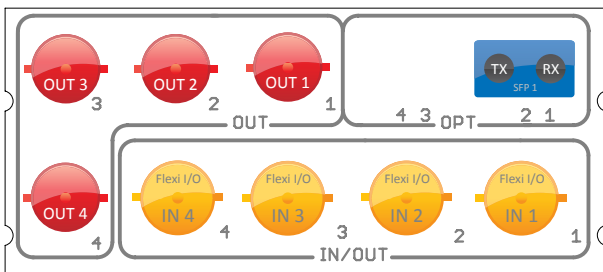
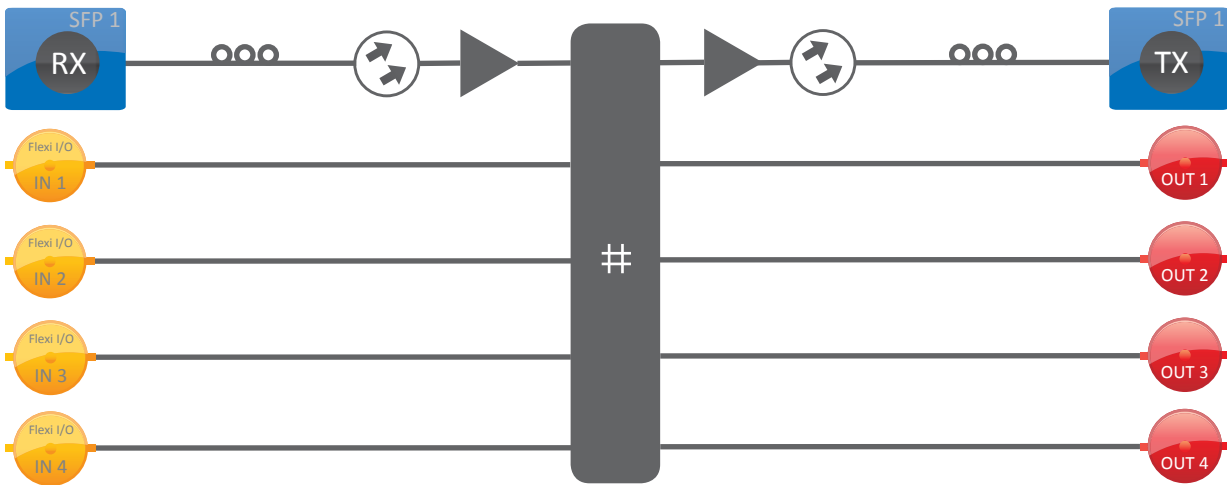


2 x Transceiver SFP



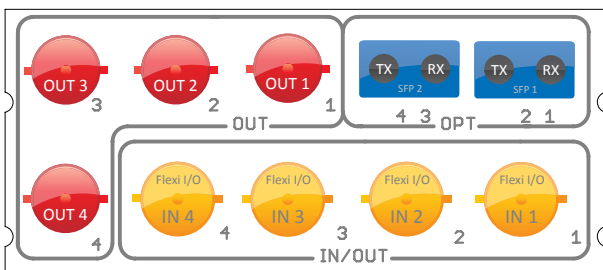
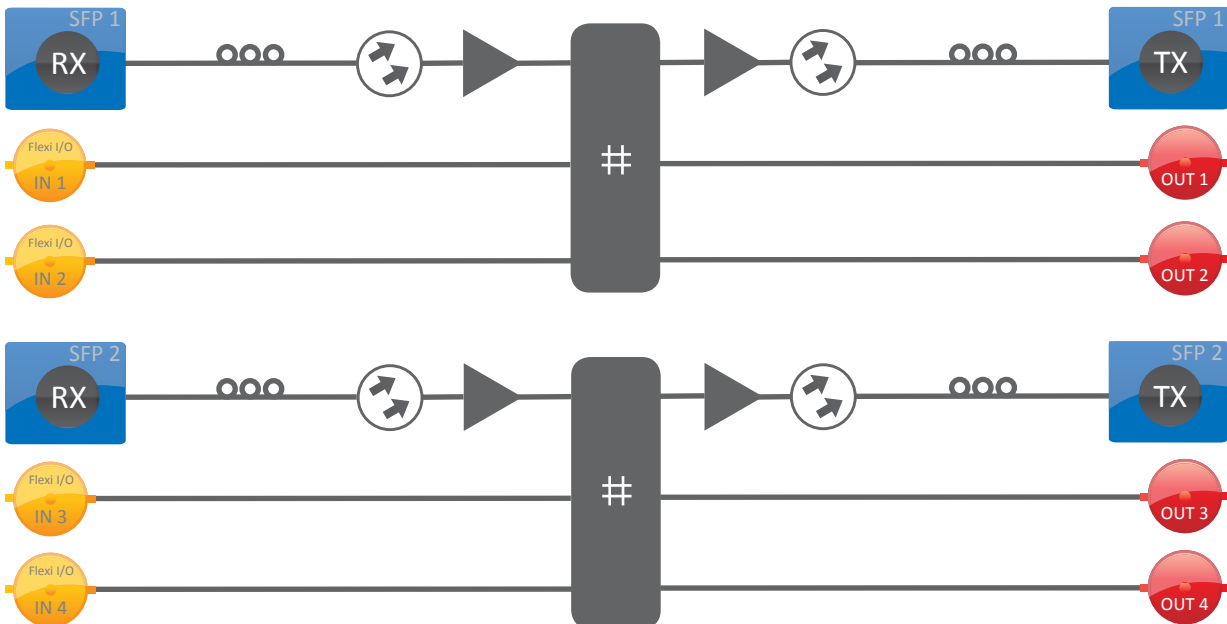
# Optical distribution\*

**P** 1 x Transceiver SFP



\* This mode is not included in the Auto SFP functionality, you must access the **P** power user mode through RCONmini to enable and use this feature

**P** 2 x Transceiver SFP



\* This mode is not included in the Auto SFP functionality, you must access the **P** power user mode through RCONmini to enable and use this feature

Norwia is a fresh breath of air and unlike all other predecessors will bring innovation and cutting edge thinking to the broadcast optical distribution domain.

***Competitive technology edge***

***Key industry personnel with the right stuff!***

***Better business philosophies***

***Customer centric ideologies***

These are our core fundamental and together this forms the value statement, giving value!



## Vision statement

Norwia will be the best for Optical Distribution products in the sense of technical innovation, value for investment and customer relations.

... giving value

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