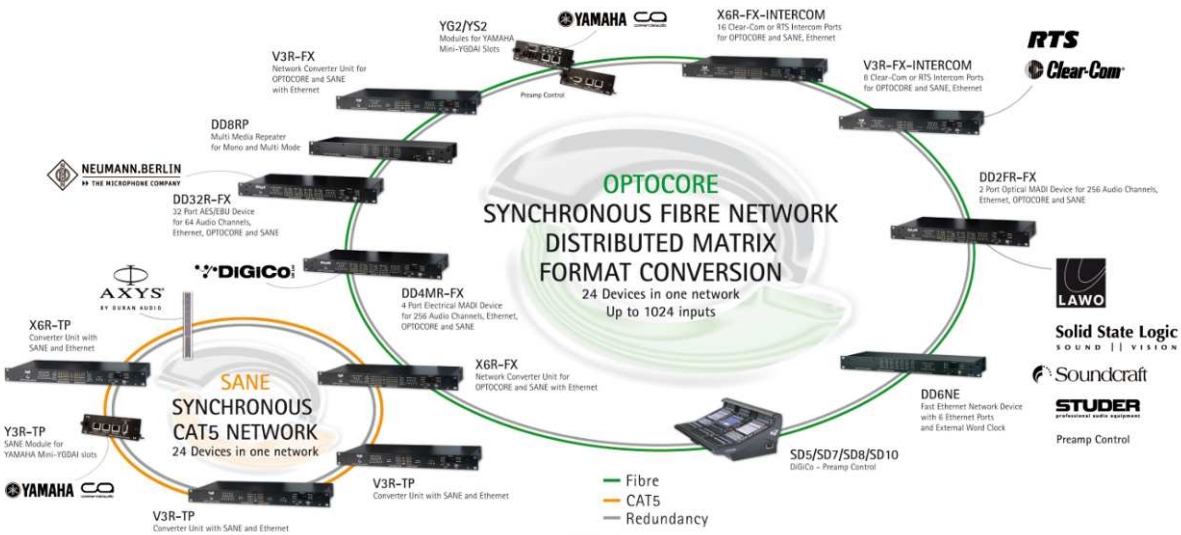

SANE with Optocore - Quick Start Guide

Using SANE TP devices as expanders for Optocore FX devices

Rev. 2.14.019

OPTOCORE GmbH
Lohenstr. 8
82166 Munich-Gräfelfing
Germany

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This document is intended to be a brief introduction on how to use SANE TP devices to expand the number of inputs and outputs on Optocore FX devices. The document assumes that an Optocore system has been configured according to the Optocore Quick Start guide and/or the Optocore Software Manual.

SANE expander setup

SANE TP network devices can be used to expand the number of inputs and outputs on Optocore FX devices.

Configuration of SANE TP expanders is set in the Software Local Settings of the Optocore FX device and the Local Settings of the SANE TP device.

1) Open the system Configuration window (Drop down menu: “Set” -> “Configuration”)
2) Enter the Software Local Settings of the Optocore FX device (Local Settings Column -> “Setup” button)
3) Set the TP device type for TP-ID 2-8 (TP-IDs 2-5 when configuring DD4MR-FX and DD2FR-FX devices, TP-IDs 5-8 when configuring DD32R-FX) as required.

   By default the AES/EBU ports on TP devices are disabled.

   a) To enable AES/EBU Port A on a TP device

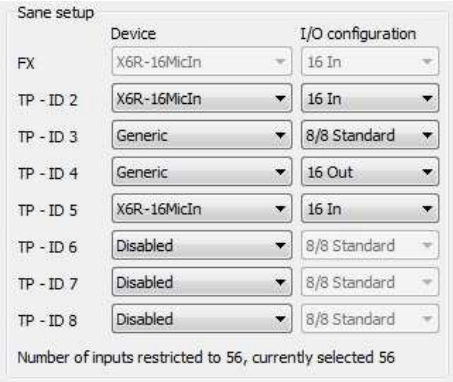
   • Configure the first TP-ID that follows the TP device requiring an active AES/EBU port as “Generic”

   • Select the required “I/O Configuration” for AES/EBU port A

   b) To enable AES/EBU Port B on a TP device

   • Configure the TP-ID that follows AES/EBU port A as “Generic”

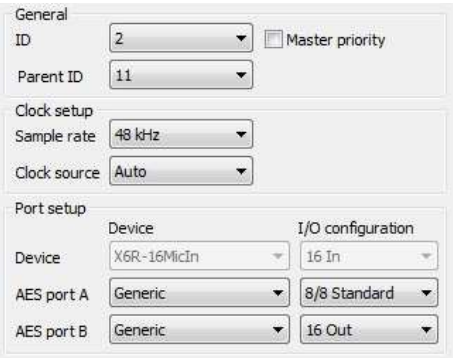
   • Select the required “I/O Configuration” for AES/EBU port B



FX unit - Local Settings – Sane Setup

Example:
The screenshot shows X6R-TP-16MI SANE device with TP-ID 2 configured to have both AES/EBU port A and B enabled for a total of 8 AES inputs and 24 AES outputs.
The next SANE TP device is assigned to TP-ID 5.

4) Click “OK” and in the “Configuration” window click “OK & Write”
5) Connect to the Optocore FX device with a USB, Ethernet or RS232 cable and “Write” the Local Settings to the device
6) Connect to the SANE TP device with a USB, Ethernet or RS232 cable.
7) Enter the Local Settings of the SANE TP device (Drop down menu: “Set” -> “Local Settings”)
8) Set the “ID” to match the “TP-ID” configured in the Optocore FX device’s Software Local Settings
9) Set the “Parent ID” to the ID of the Optocore FX device that is connected to the SANE TP device
10) If utilising the AES/EBU port(s) of the SANE TP device, configure the AES port “I/O Configuration” to match the setup in the Optocore FX device.
11) Write the Local Settings to the SANE TP device.
12) Connect the SANE link from the Optocore FX device’s SANE 1 port to SANE TP device’s SANE 2.



TP ID 2 - Local Settings

13) Connect the SANE link from SANE 1 to SANE 2 trough all devices.
Do not connect the SANE link back to the Optocore FX device.

Please note:
Do not connect a SANE link from the last device back to the Optocore FX device.
The SANE expansion is wired as a daisy chain

Audio is routed using the Optocore Control Software as in a regular Optocore network. Individual SANE TP devices and converters are nested together as ports under the parent Optocore device in the device tree and the Matrix window. The port number relate to the TP-ID of the SANE device.

Please note:
Audio inputs from SANE TP units connected to an Optocore FX device need to be added to the total input count from the Optocore FX device in the "Configuration" window to be accessible on the Optocore network.

The sum of all input channels in SANE sub-network cannot exceed 64.

The sum of all output channels in SANE sub-network cannot exceed 64.

Please note:
The software needs to be configured to connect to the devices using USB, Ethernet or RS232.

In the "Administration" pull down menu, select "Server Options" to set the connection method.

Refer to the Optocore Software Manual for setup of the Ethernet connection

Please note:
To access and configure Software Local Settings on an Optocore FX device:
- From the drop down menu select: "Set" -> "Configuration"
- In the Local Settings column click "Setup" for the device to be configured
- Configure as needed
- Click "OK" - In the Configuration window click "OK & Write"
- The computer must be connected to the Optocore FX with USB, Ethernet or RS232
- Locate the device from the device list and click "Write"

To access and configure Local Settings on a SANE TP device:
- The computer must be connected to the SANE TP with USB, Ethernet or RS232
- From the drop down menu select: "Set" -> "Local Settings"
- Configure as needed
- Click "Write"

Please note:
When configuring DD32R-FX with TP devices connected by SANE, IDs 1-4 are reserved to the AES ports of DD32R-FX. The first TP-ID in the daisy chain is 5

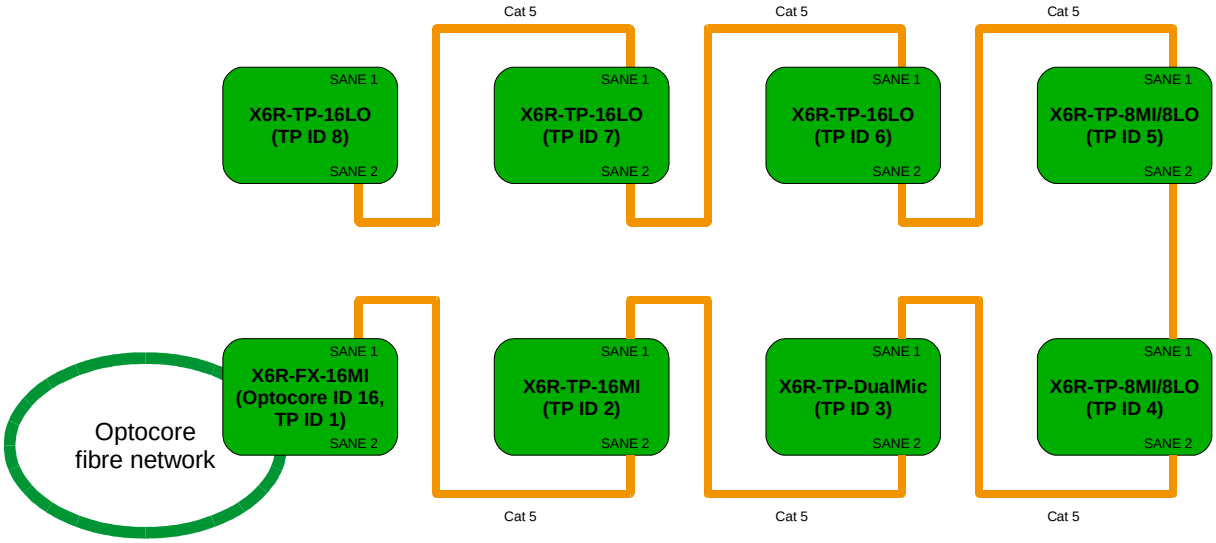
Please note:
Y3R-TP card reserves two SANE IDs as it enables 16/16 setup. To connect one Y3R-TP card select two consecutive TP-IDs as Generic (8/8 Standard) or X6R-16AE (8/8 Standard). This will enable 16 inputs and 16 outputs from the card. For the detailed setup refer to the example below or to the Yamaha and Optocore Guide.

EXAMPLES

The following examples demonstrate how to configure and wire SANE TP expanders when used with Optocore FX devices.

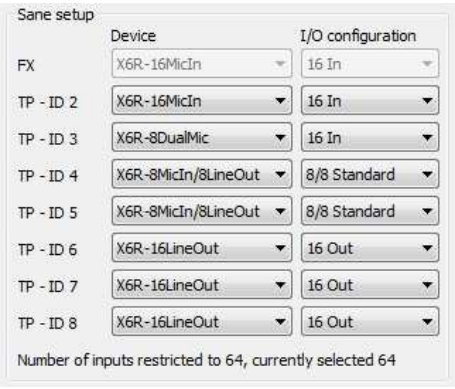
EXAMPLE 1: TP devices without AES ports

Seven X6R-TP SANE devices are connected to an Optocore X6R-FX device as shown in the diagram below.



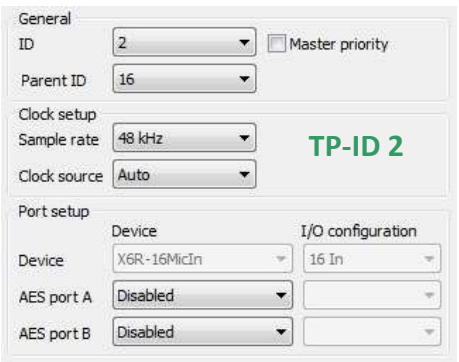
This system would be configured as shown below:

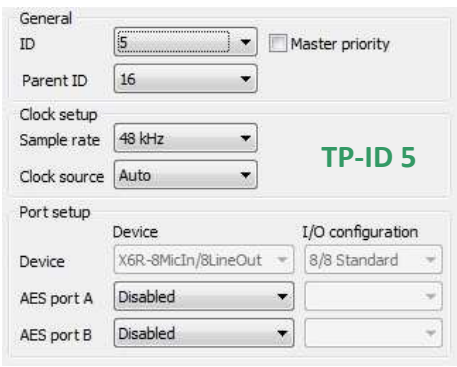
1) In ID16 - Software Local Settings - Sane setup:
   a. TP – ID 2: X6R-16MicIn
   b. TP – ID 3: X6R-8DualMic
   c. TP – ID 4: X6R-8MicIn/8LineOut
   d. TP – ID 5: X6R-8MicIn/8LineOut
   e. TP – ID 6: X6R-16LineOut
   f. TP – ID 7: X6R-16LineOut
   g. TP – ID 8: X6R-16LineOut



FX unit - Local Settings – Sane Setup

2) For each X6R-TP – Local Settings:
   a. ID: 2…8 (depending on the position of the device in the daisy-chain)
   b. Parent ID: 16
   c. AES port A and B: Disabled

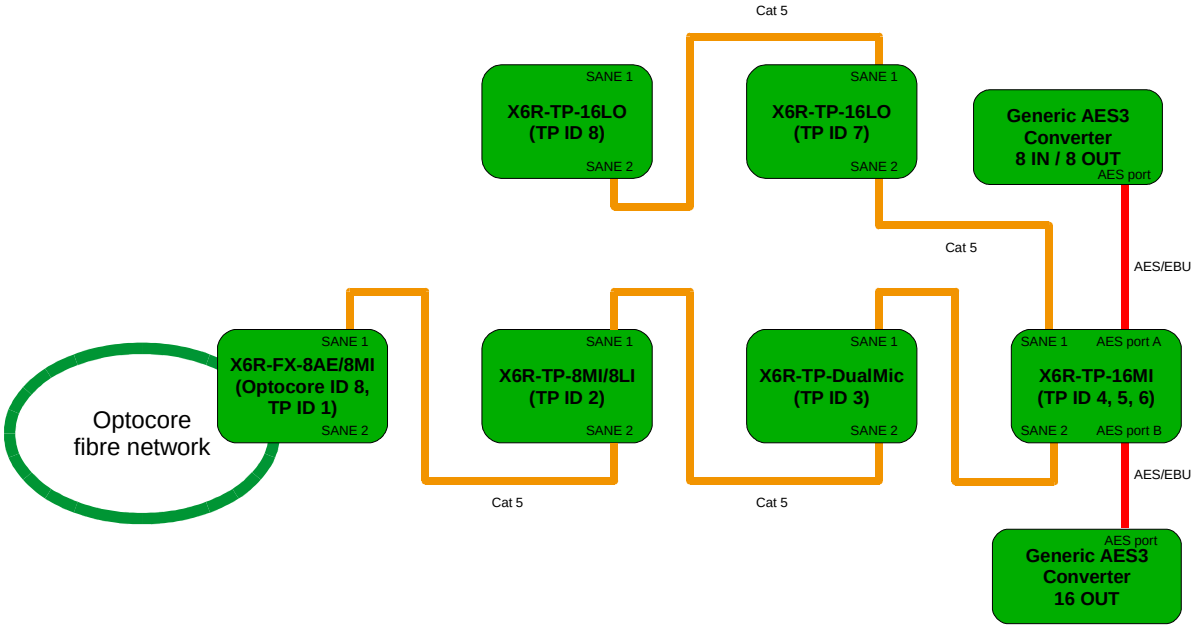




The screenshots show Local Settings on X6R-TP-16MI (TP-ID 2) and X6R-TP-8MI/8LO (TP-ID 5).

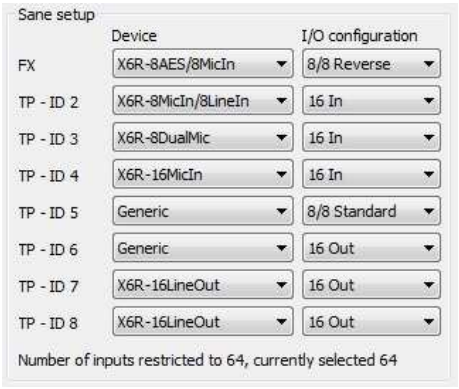
EXAMPLE 2: Five TP devices, one with two AES/EBU ports enabled

An Optocore X6R-FX is connected to five X6R-TP devices by SANE. The third TP device in the daisy chain is configured with both AES/EBU ports enabled and connected to generic 3rd party converters as shown below.

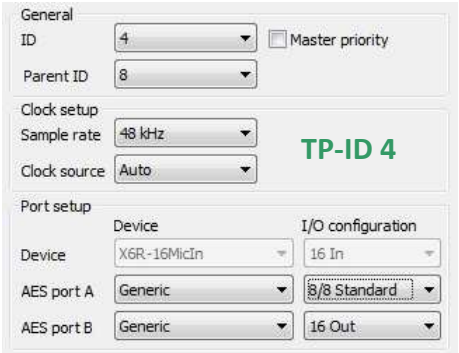


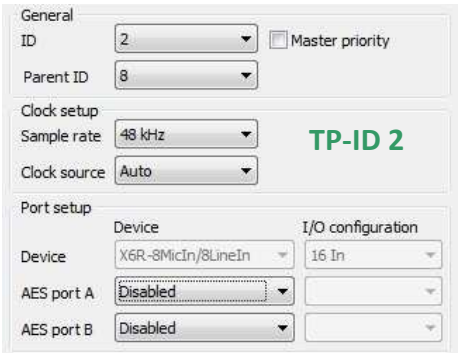
This system would be configured as shown below:

1) In ID8 - Software Local Settings - Sane setup:
   a. TP – ID 2: X6R-8MicIn/8LineIn
   b. TP – ID 3: X6R-8DualMic
   c. TP – ID 4: X6R-16MicIn
   d. TP – ID 5: Generic, 8/8 Standard
   e. TP – ID 6: Generic, 16 Out
   f. TP – ID 7: X6R-16LineOut
   g. TP – ID 8: X6R-16LineOut
2) In the third X6R-TP – Local Settings:
   a. ID: 4
   b. Parent ID: 8
   c. AES port A: Generic, 8/8 Standard
   d. AES port B: Generic, 16 Out
3) In the first, second, fourth and fifth X6R-TP– Local Settings
   a. ID: 2, 3, 7, 8 (depending on the position of the device in the daisy-chain)
   b. Parent ID: 16
   c. AES port A and B: Disabled



FX unit - Local Settings – Sane Setup

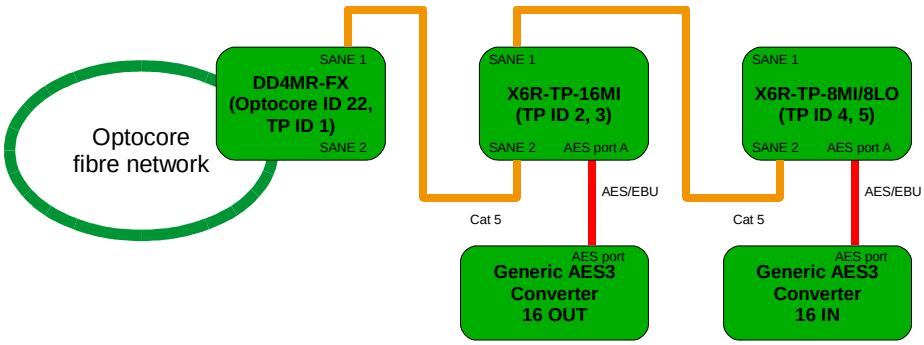




TP devices - Local Settings

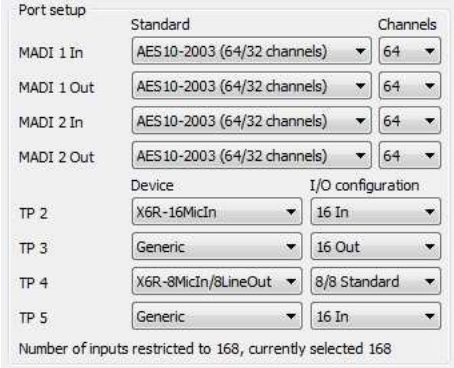
EXAMPLE 3: Two TP devices connected to DD4MR-FX, each with a single AES/EBU port enabled

In this example a DD4MR-FX Optocore unit is connected to two X6R-TP devices, each with one AES port enabled.

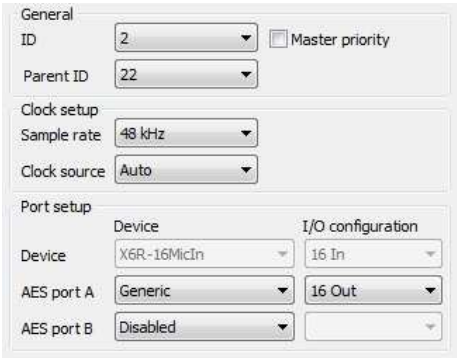


This system would be configured as shown below:

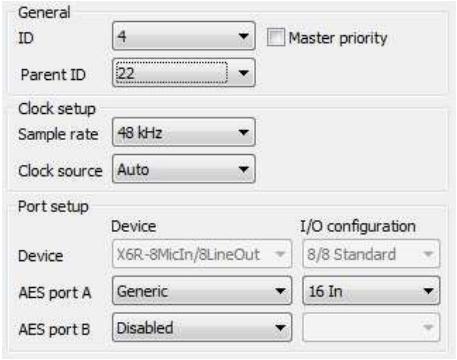
1) In ID22 - Software Local Settings - Sane setup:
   a. TP – ID 2: X6R-16MicIn
   b. TP – ID 3: Generic, 16 Out
   c. TP – ID 4: X6R-8MicIn/8LineOut
   d. TP – ID 5: Generic, 16 In
2) In X6R-TP-16MI - Local Settings:
   a. ID: 2
   b. Parent ID: 22
   c. AES port A: Generic, 16 Out
   d. AES port B: Disabled
3) In X6R-TP-8MI/8LO - Local Settings:
   a. ID: 4
   b. Parent ID: 22
   c. AES port A: Generic, 16 In
   d. AES port B: Disabled



FX unit - Local Settings – Sane Setup



TP ID 2 - Local Settings



TP ID 4 - Local Settings

Contact Information

Mailing Address:

OPTOCORE GmbH
Lohenstr. 8
D-82166 Munich-Gräfelfing
Germany

Telephone:

+49 – (0)89 – 8999640

Facsimile:

+49 – (0)89 – 89996455

Internet:
www.optocore.com

Email:
Inquiry@optocore.com