TECHNICAL NOTE
011410

CONFIGURING OPTOCORE SYSTEM TO WORK WITH DiGiCo CONSOLES

REQUIREMENTS

There are several rules and requirements which have to be accepted and followed if you wish to connect Optocore devices directly to the Digico consoles:

1. Only R-series units running 2.21.019 or later firmware can run on Digico fiber network
2. Optocore units' IDs shall be configured with IDs within the range 11-24.
3. Optocore and Digico devices should run the same fiber speed (usually it is 2Gbit by default)
4. Before connecting Optocore devices to Digico the basic configuration shall be applied
5. When Optocore devices are connected to the Digico consoles, Digico takes the full control over the Optocore system - Optocore Control software in online mode cannot be used
6. When Optocore is connected to Digico ring the following features oft he Optocore network are NOT supported
    a. System Ethernet
    b. RS485/422
    c. Intercom connectivity
    d. SANE 2 connectivity
    e. SANE 1 connectivity on DD2FR-FX, DD4MR-FX, DD32R-FX
7. When X6R/V3R-TP devices create daisy chain from SANE 1 port of X6R-FX all hardware microphone inputs shall appear in front of the outputs in the daisy chain
8. Digico will recognize all Optocore devices and treat them as additional I/O in the Digico setup
9. The total number of audio inputs and outputs is determined by Digico
10. Digico and Optocore system can run in 96k or 48k sample rate – sample rates have to match
11. Digico will be responsible for the Optocore matrix and X6R mic gain control
12. Digico should be running the latest Software and the latest Optocore Code - both available from Digico
13. For the detailed setup on Digico end please refer to Digico technical notes

CONFIGURATION

Firmware upgrade

Before starting to work with the console, upgrade each single device using the Optocore Firmware 2.21.019 or later. To do so please follow the steps:

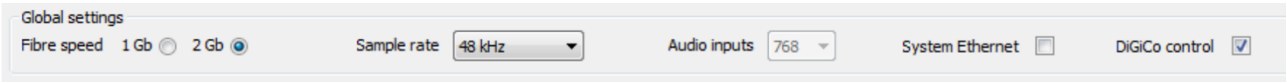
1. Unzip the Firmware folder, in folder you run OptcUpgr.exe file
2. Connect the first device with USB
3. In the dialog which appears select USB as a connection type and Device which you are currently connected to
4. The device should enter the upgrade mode; run UPGRADE / ERASE ALL SETTINGS from the dropdown menu
5. After erase is done run UPGRADE / UPLOAD FIRMWARE, when the upgrade is done and you press OK the device should boot with the default settings - ID1
6. Repeat steps 2-5 for all units. All devices should now show ID1

Software Configuration

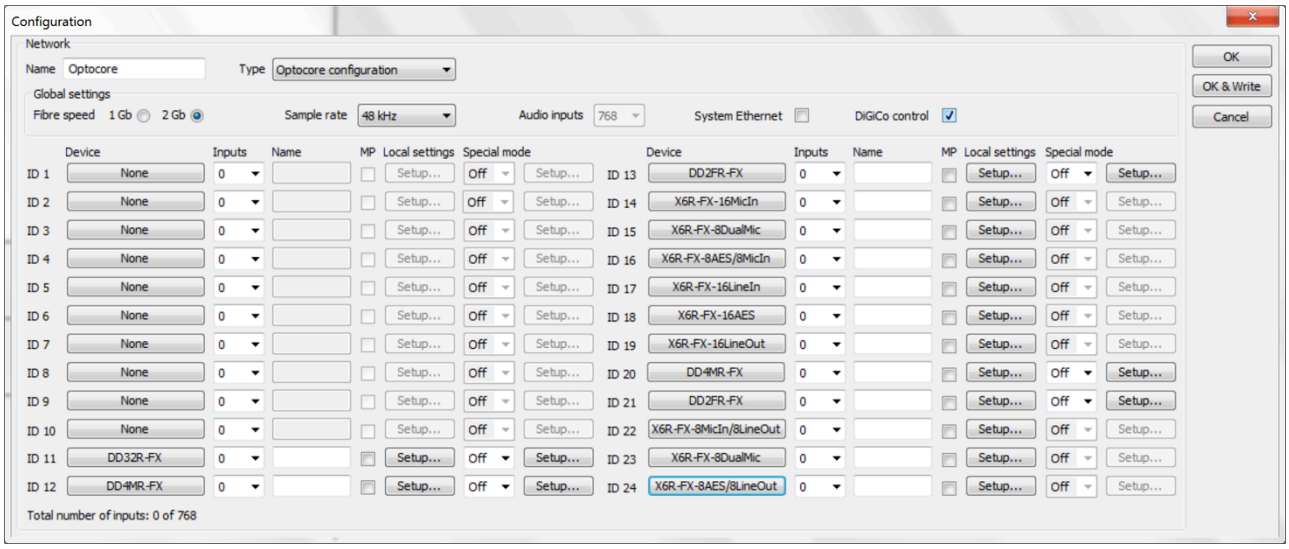
After all devices are upgraded the Optocore Control Software should be used to configure the system. Follow the steps to properly configure Optocore devices to work with the Digico system:

1. Run Optocore Control V2.21.019 or later – the software version should match the uploaded firmware version

2. Go to SET/CONFIGURATION, set the basic network configuration – 2G, Sample rate 48k or 96k (depending on Digico session settings), System Ethernet disabled, Digico mode enabled:

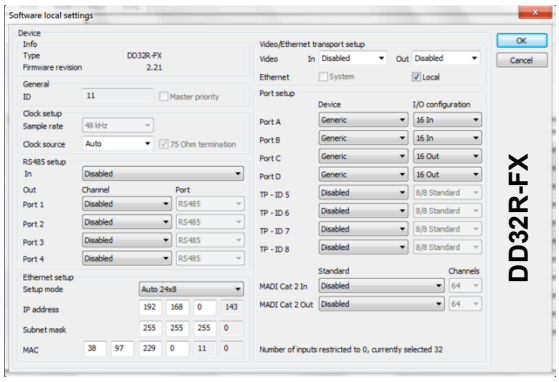


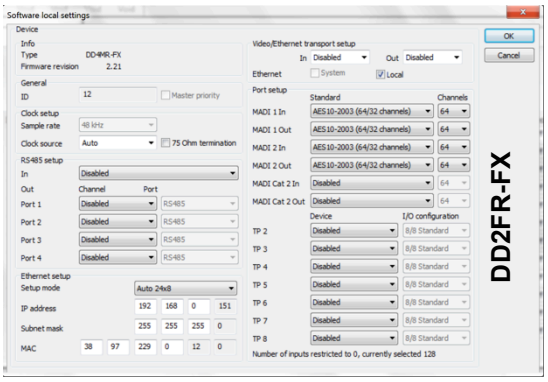
3. Assign Optocore devices in the IDs 11-24. It doesn't matter which IDs within this range are selected. Leave IDs 1-10 empty. If there are Digico SD Racks in the fiber system do not use IDs which are set on SD Racks for the Optocore devices.

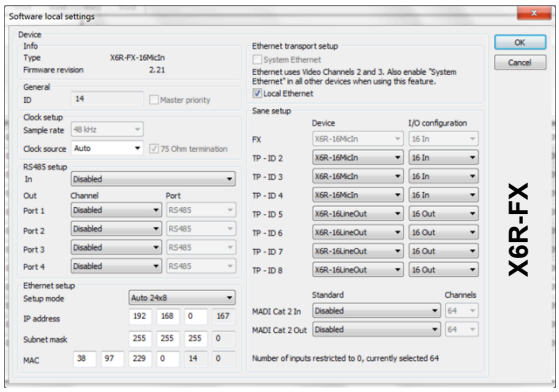


Unlike with the Optocore standalone system the number of inputs doesn't need to be specified in this step.

4. Set the Local Settings for each device to enable AES/EBU (DD32R-FX), MADI (DD2FR-FX, DD4MR-FX) or SANE 1 (X6R/V3R-FX) ports





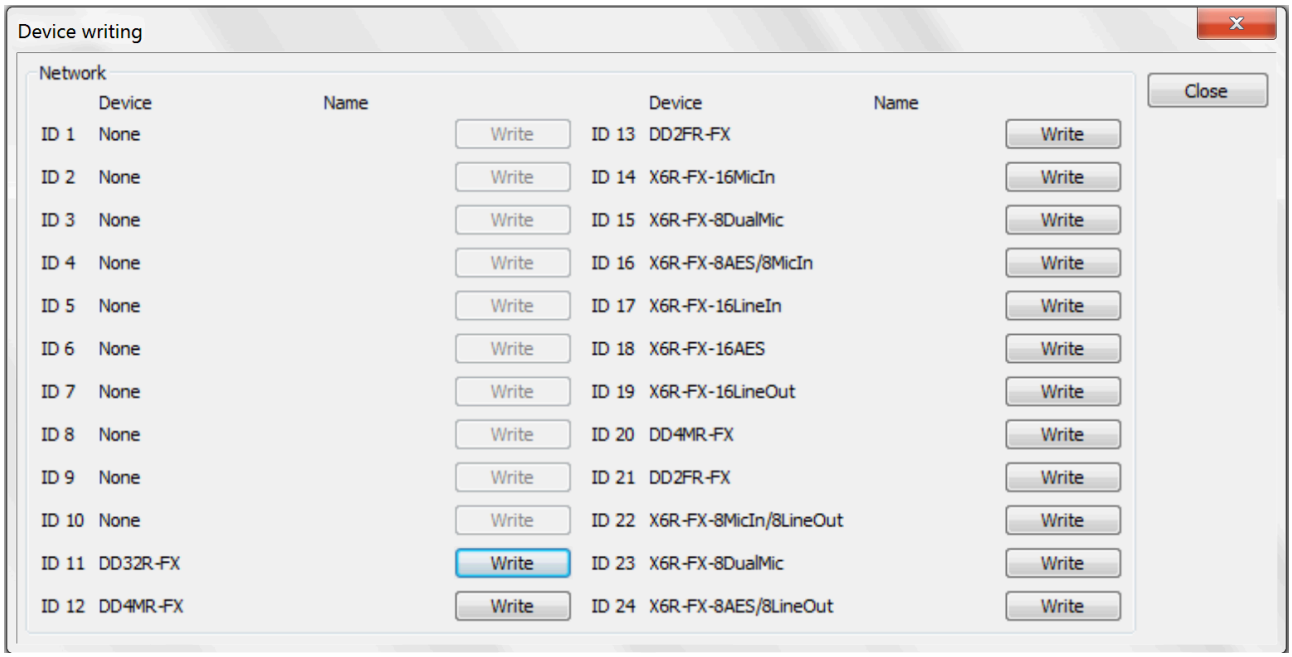


Do not enable SANE ports on DDxxR-FX devices.

Do not enable SANE 2 port on X6R/V3R-FX devices.

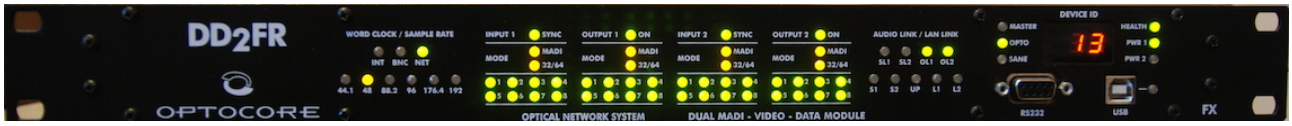
All Mic inputs in SANE 1 daisy chain on X6R/V3R-FX should be set in front of line outputs.

5. After all devices are set correctly with the Local Settings and proper IDs press OK & Write and WRITE button for each device – you have to connect locally with the USB cable to the device before pressing WRITE button.



CABLE CONNECTION

After the complete configuration is done and all devices are configured with the unique ID number the fiber cables can be connected to the Digico console. Please make sure to use crossed fiber cables and proper cable type – according to the delivered transceivers. Transceivers of Optocore must match the Digico ones. For Multimode connectivity use standard Multimode transceivers provided by Optocore, for singlemode connectivity use special 2Gbit Optocore transceiver. After successful cable connection the LEDs should look like in the picture below. If LEDs OL1 or OL2 are not on, please double-check the configuration and cable connectivity.



DiGiCo SETUP

To set the Digico console please refer to the Digico website:

http://www.digico.biz/docs/about/manuals_1.shtml