

# MiniFlex and Orion Dinrail Mechanics Application Note (20120820)

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## **Summary**

This document describes the installation and mounting possibilities for dinrail units. MiniFlex, Orion2 and Orion3 SHDSL modems can be ordered in dinrail enclosures and minirack. Sometimes these enclosures have to be mounted in a special way because of tight place or because they should be used in a 19" rack.



### 1 Standard Dinrail Modems & Miniracks

The MiniFlex, Orion2 and Orion3 series offer standard SHDSL dinrail modems, miniracks and switches with different interfaces like Ethernet, E1 (G.703/G.704), Nx64 (X.21/V.35/V.36/V.24) and up to 4x SHDSL (minirack has up to 8x SHDSL). The specifications of the interfaces can be seen in the corresponding short data sheets and manuals. Mechanical features are:

- High quality metal enclosure
- Dinrail Modems are powder coated RAL5003
- Dinrail Modems have international protection IP 30
- Dinrail Minirack has international protection IP 20
- Dinrail clip is conductive and can be used for the protection earth

The following pictures show the available dinrail mechanics in Orion2, Orion3 and MiniFlex series.



Figure 1.1. Orion2/3 and MiniFlex Dinrail Modems & Minirack. MiniFlex Dinrail Switch.

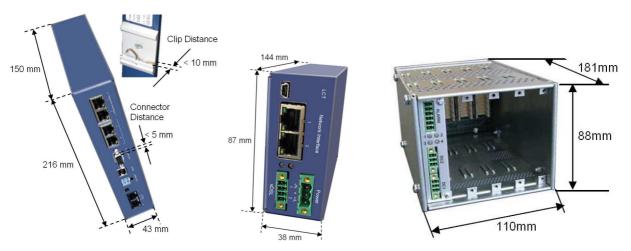


Figure 1.2. Mechanical Dimensions of Orion2/3 and MiniFlex Dinrail Modems, Minirack and Switches.



# 2 Special Mechanics

In some applications the installation of a standard SHDSL Orion or MiniFlex dinrail unit is not possible, because of tight place. FlexDSL Telecommunications AG has some special mechanics available to allow different installation possibilities for the dinrail equipment:

- · Comfortable Installation without effort
- Wallmount or Side Installation
- 19" Installation

## 2.1 Special Comfortable Dinrail Clip (FG-RAIL-ComfortClip-x)





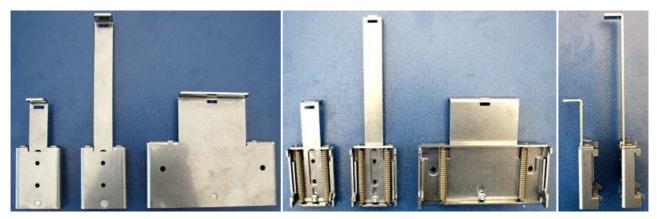


Figure 2.1. Comfortable Dinrail Clip for Orion Series (Article: FG-RAIL-ComfortClip-x).

FG-RAIL-ComfortClip-MF: for MiniFlex Dinrail Modems

FG-RAIL-ComfortClip-Orion2/3: for Orion2 or Orion3 Dinrail Modems

FG-RAIL-ComfortClip-MFMR: for MiniFlex Minirack

### 2.2 Wallmount Clip (MF-RAILN-WALLMOUNT, V1)



Figure 2.2. Comfortable Wallmount Clip for MiniFlex or Orion Series (Article: MF-RAILN-WALLMOUNT, V1).



#### 2.3 Dinrail Holder for for the Installation of two Dinrail Modems (FG-RAIL-Holder2Dinrail)

There is sometimes the need to have 2 SHDSL modems or an SHDSL modem combined with a managed switch in a place with a limited height. For this FlexDSL Telecommunications AG has a special holder.

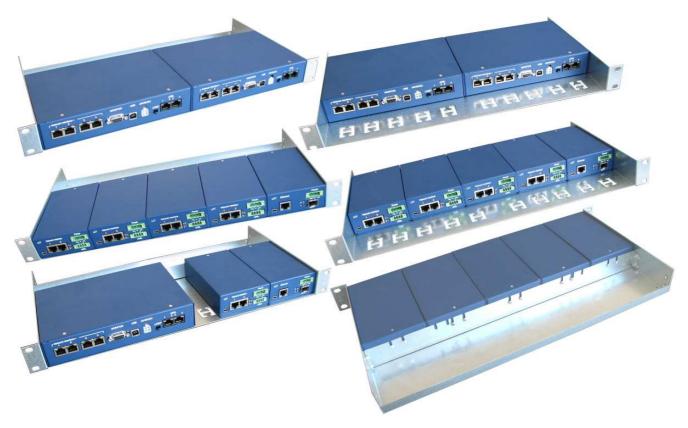


Figure 2.3. Dinrail Holder for two Dinrail Modems/Switches (Article: FG-RAIL-Holder2Dinrail).

### 2.4 19" MiniRack 1U for the Installation of Dinrail Modems (FG-RAIL-MRN-1U)

The 19" MiniRack 1U unit can be mounted with 2x Orion or 5x MiniFlex dinrail SHDSL modems. You can also have a mixture of them. And you can move the backpanel of the MiniRack that you have around 60mm space in front for cabling or you can move the backpanel in a position that Orion or MiniFlex SHDSL modems are exactly on the frontside.

If multiple MiniRacks will be installed in a rack, there should be a distance of at least ½U between the MiniRacks to have a better convection cooling.





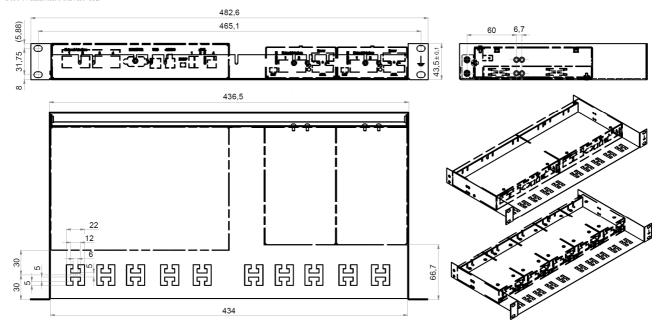


Figure 2.4. Mechanical Drawing of FG-RAIL-MRN-1U

### 2.5 19" Subrack 2U for the Installation of Dinrail Modems (FG-RAIL-R-2U)

The 19" subrack 2U with a dinrail at the backpanel can be mounted with 9x Orion or 10x MiniFlex SHDSL dinrail modems. You can also have a mixture of them. We suggest to have a space between all dinrail SHDSL modems of around 5mm to have a better convection cooling. And you can move the backpanel of the subrack that you have around 60mm space in front for cabling or you can move the backpanel in a position that Orion or MiniFlex SHDSL modems are exactly on the frontside.





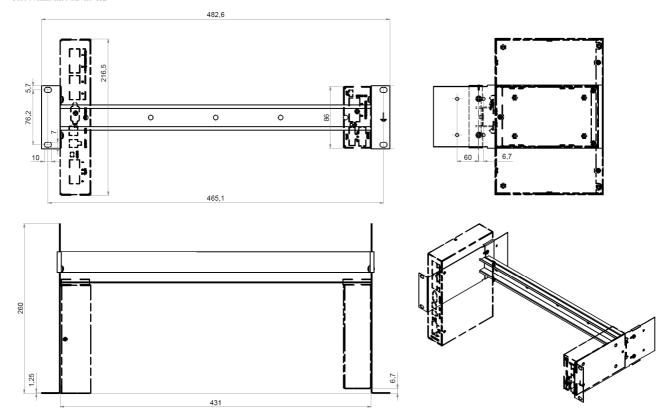


Figure 2.5. Mechanical Drawing of FG-RAIL-R-2U