

4. Network connection (LAN)

Several FMA21 can be connected to a network. This enables that the FMA21 devices can change data between each other as well as with a central data server. To use this functionality each FMA21 has to be clearly identifiable in the LAN which can be done with IP addresses. Therefore, each device in the network must be given a unique IP address. If this is not provided the connected devices or the network may not operate properly. To start up a network properly please see chapter 4.2.

IP addresses in the network are static. This means that each device connected to the network must have a fixed IP address. The structure as well as the distribution of the IP addresses are defined. It is a class B net (172.20.x.x, 255.255.0.0) with the following sub groups:

Sub group 0: administration pc (server and result management)

Sub group 1: all network devices and scoring machines of piste 1

Sub group 2: all network devices and scoring machines of piste 2

Sub group 3: all network devices and scoring machines of piste 3

etc.

Within the sub groups the IP addresses are static as well and already defined.

Sub group 0:

172.20.0.1	Result server
172.20.0.2	allstar back end server
172.20.0.20 – 39	Ophardt control pc
172.20.0.100 – 199	Swiss Timing control pc and monitors
172.20.0.240 – 249	allstar managed switches

Sub group 1:

172.20.1.1	Master FMA21 (main (master) scoring machine of piste 1)
172.20.1.2	Slave 1 FMA21 (display (slave) scoring machine of piste 1)
172.20.1.3	Slave 2 FMA21 (display (slave) scoring machine of piste 1)
172.20.1.4	Slave 3 FMA21 (display (slave) scoring machine of piste 1)

etc.

Sub group 2:

172.20.2.1	Master FMA21 (main (master) scoring machine at piste 2)
172.20.2.2	Slave 1 FMA21 (display (slave) scoring machine at piste 2)
172.20.2.3	Slave 2 FMA21 (display (slave) scoring machine at piste 2)
172.20.2.4	Slave 3 FMA21 (display (slave) scoring machine at piste 2)

etc.

3.9 Which protocols with which interfaces

Below please find an overview of the availability of protocols with the particular interfaces.

Protocol\interface	RS232	RS422	RS485	LAN
Kabcom	available (default from V0.5.0)	available	available (master mode)	not available
SwissTiming	available	available (default from V 0.5.0)	available (master mode)	not available
Swiss Timing 2.0	available	available	available (master mode)	not available
Internal Bus	not available	not available	available (currently only master mode) (default from V 0.5.0)	not available
Internal Bus V19	available	available (default from V 0.9.0)	available (currently only master mode)	not available
allstar Fencing Link	available	available	available (master mode)	not available
Cyrano	not available	not available	not available	available
allstar extension	not available	not available	not available	available

Please note: The individual choice of protocols to interfaces via the property menu is not yet implemented in the current software version V 0.9.6 which means that the default settings cannot be changed yet.