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5 Artist Cards

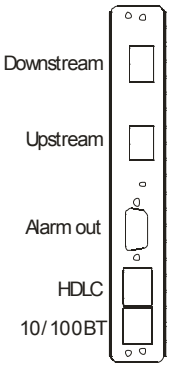
5.1 CPU-128 G2 Controller Card

The CPU 128 (S/F) G2 card is the core of the system. The configuration is stored in the CPU card and transmitted to the client card during the client card boot-procedure. Each CPU card has an Ethernet MAC- and IP address. The IP address at Bay A is always even, the IP address at Bay B is always odd (Bay A +1).
The IP address of a CPU card with an even IP address inserted in Bay B will be incremented by 1.
The IP address of a CPU card with an odd address will be decremented by 1.

The default IP address for new systems is **192.168.42.100** for the CPU placed in bay A.



Figure 5.1-CPU 128X G2 card (CPU 128 F G2 shown)



The CPU Card offers Ethernet, HDLC bus, Alarm contact and fiber (optional).

Figure 5.1-1 CPU128 X G2 card rear view

This CPU is available in different types:

- CPU 128**F** G2 (prepared for fibre interface)
- CPU 128**S** G2 (stand alone solution without fibre)

The CPU 128 F G2 offers two SFP cages where Fiber Optical Modules (FOM) can be inserted.

FOM (only CPU 128 F G2)

The fibre optic modules (FOM) are available in three different types, all FOM have LC connectors.

- FOM MM
- FOM MM HP
- FOM SM

FOM	Max. distance	Mode	Fiber	Wavelength	Pout Max.	Max. loss
MM	550m	Multi mode	50/125µm	850nm	-4dBm	8,5dB
MM HP	2000m	Multi mode	50/125µm	1310nm	-1dBm	9,5dB
SM	Up to 10km	Single mode	9/125 µm	1310nm	-3dBm	10,5dB

Do not use the FOM for PMX 2004 / PMX 2008 because of different bitrates.

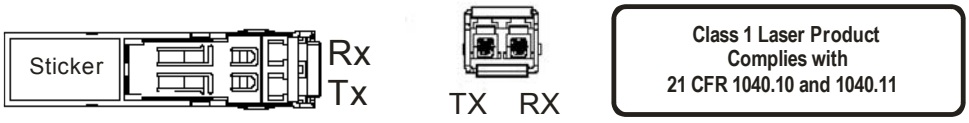
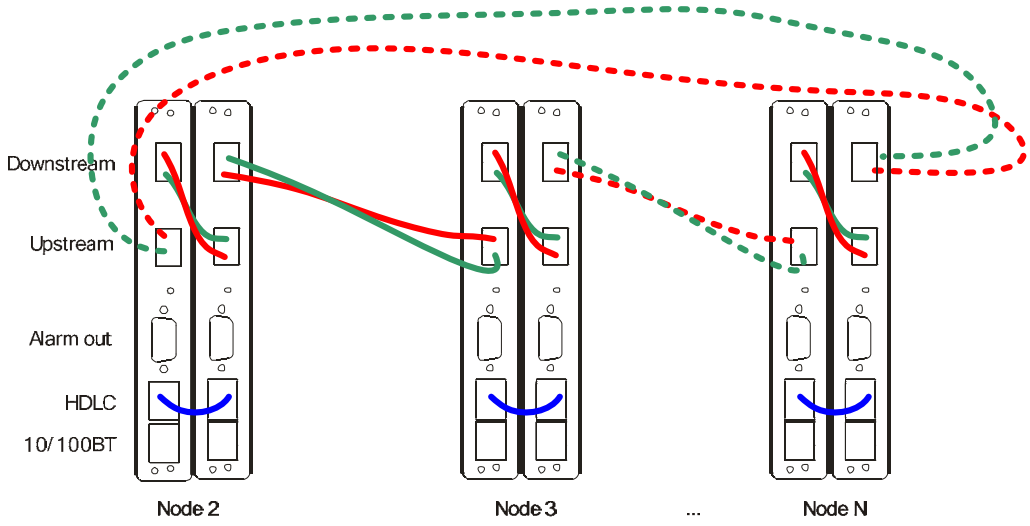


Figure 5.1-2 FOM (top view, front view)

5.1.1 Fiber Setup



Crossed duplex fiber lines are necessary!

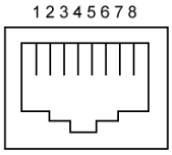
A correct fiber connection is indicated by yellow status LEDs at the CPU front card.

Figure 5.1-3 Artist CPU Fiber Setup (example: 2 redundant nodes)

For a multi-node system refer the Director software manual concerning IP- , Node, and Web-ID setting!

Ethernet port

The Ethernet port has a "PC-Pinning" (TIA 568B). For direct connection to a PC use a X-over cable. For connection to a hub or switch use a 1:1 cable. The Artist ethernet port is 10, half-duplex compatible.



Pin	Signal	Standard color
1	TxD +	orange/white
2	TxD -	orange
3	RxD +	green/white
4		blue
5		blue/white
6	RxD-	green
7		brown/white
8		brown

Figure 5.1-4 CPU card Ethernet Port RJ-45pinout (8P8C)

Software Alarm Interface

Depending the node properties settings in the Director configuration software, various alarms can generate an output at this connector.

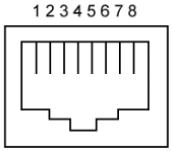


Pin	Signal
1	Alarm Out Relay 1 A
2	Alarm Out Relay 2 A
3	
4	+24 V
5	
6	Alarm Out Relay 1 B
7	Alarm Out Relay 2 B
8	
9	GND
shield	Chassis ground

Figure 5.1-5 CPU card Software Alarm Sub D 9 pin pinout

- + 24V supply (Pin 4) is rated for max. 100mA (protected by self-healing fuse)
- Alarm Out contact rating is 48V/1A maximum
- Alarm In voltage range is +5V ... +25V
- Normal closed

HDLC connector



Pin	Signal
1	Master out
2	Fail out
3	Master in
4	HDLC 1+
5	HDLC 1–
6	Fail in
7	HDLC CLK +
8	HDLC CLK –



If a redundant CPU is used (two CPUs in one frame), the HDLC bus MUST be connected between the two CPUs.
It is highly recommended to use the original HDLC patch cord provided by Riedel
The cable is a 10/100BT x-over cable.
Gbit X-over cables are not suitable.

Figure 5.1-6 CPU card HDLC bus RJ-45 pinout

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