

6 ANNEX

6.1 Specification of the Jaux Dataway

6.1.1 Signal Mnemonics

6.1.1.1 Clock

Bussed differential line terminated on both sides of the backplane (2 resistors to ground + 1 resistor in between the two lines, values to be chosen according to the characteristic impedance of the lines in the backplane).

CK = positive logic
CK* = negative logic

6.1.1.2 Start/Stop Gate

Bussed differential line terminated in the same way as CK/CK*.

SG = positive logic
SG* = negative logic

6.1.1.3 Clear

Bussed differential line terminated in the same way as CK/CK*.

CL = positive logic
CL* = negative logic

6.1.1.4 Slot Number

Binary coded slot number lines referred to as SN1, SN2, SN3, SN4 and SN5. Individual pins on the backplane are either grounded (GND) or not connected (NC). (6.1.4)

6.1.1.5 Power and Ground

They are referred to as indicated below:

CE = clean earth
GND = ground
-2V = -2 Volts
-5V = -5.2 Volts
+15V = +15 Volts
-15V = -15 Volts

6.1.2 Signal Levels

6.1.2.1 CK, SG and CL signals
CK, SG and CL are generated by a driver module in the crate and they should be compatible with all other modules that are using them in this crate. ECL levels are recommended though other levels might be used exceptionally in some particular cases.

6.1.2.2 SN1 through SN5 signals

In the user module, SN1 through SN5 are:

- pulled up to +5 Volts through a 5.6 KOhms resistor for TTL logic.
- fed to the receiving circuit through a silicon diode for ECL logic. In this case they correspond to a negative logic coding of the slot number.

6.1.3 Pin Assignment for the Jaux Connectors

Pin Number	Row A	Row B	Row C
1	SN1	GND	SN2
2	SN3	GND	SN4
3	SN5	GND	GND
4	CK*	GND	CK
5	SG*	GND	SG
6	CL*	GND	CL
7	-2V	-2V	-2V
8	-15V	CE	+15V
9	-5V	-5V	-5V
10	-5V	-5V	-5V

The pin numbering corresponds to that used for the J1 and J2 connectors in the VMEbus specification manual (also Tables 1 and 2).

6.1.4 Grounding of the SN1 through SN5 Pins

The SN pins are grounded (GND) or not connected (NC) according to the table below:

Slot Number	SN1	SN2	SN3	SN4	SN5
1	NC	GND	GND	GND	GND
2	GND	NC	GND	GND	GND
3	NC	NC	GND	GND	GND
4	GND	GND	NC	GND	GND
5	NC	GND	NC	GND	GND
6	GND	NC	NC	GND	GND
7	NC	NC	NC	GND	GND
8	GND	GND	GND	NC	GND
9	NC	GND	GND	NC	GND
10	GND	NC	GND	NC	GND
11	NC	NC	GND	NC	GND
12	GND	GND	NC	NC	GND
13	NC	GND	NC	NC	GND
14	GND	NC	NC	NC	GND
15	NC	NC	NC	NC	GND
16	GND	GND	GND	GND	NC
17	NC	GND	GND	GND	NC
18	GND	NC	GND	GND	NC
19	NC	NC	GND	GND	NC
20	GND	GND	NC	GND	NC
21	NC	GND	NC	GND	NC

6.2 Summary of non standard VMEbus additions

The Jaux connector and the -5.2 V, -2 V, ± 15 V lines are the additions to a standard VMEbus crate introduced in the unit described in this specification.