SPECIFICATION OF CRATE

1. CRATE

Standard 6U by 235 mm depth eurocrate without fans and with rear

powerpack

(rack will be equiped in fans and cooling system).

2. CARDS

LV and HV cards are single width (4 HP - 20 mm).

3. LOCATION OF CARDS IN CRATE.

LV CARDS - 4 CHANNELS

HV CARDS - 8 CHANNELS

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INTERLOCK | CONTROLLER | LV | HV | LV | LV | HV | LV | LV | HV | LV | LV | HV | LV | LV | HV | LV | EMPTY SLOT
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TOTAL 48 CHANNELS OF POWER SUPPLY PER CRATE.

SPECIFICATION OF BACKPLANE

1. POWER , CONTROL LINES AND BOARD ADDRESS PINS

1.1 POWER LINES

1.1.1 From powerpack to cards

- +5VDC
- +12VDC
- Um=58V 48 kHz square
- Return Um=58V 48 kHz square
- GND (return +5VDC and +12VDC)
- EARTH

Total 7 lines

1.1.2 From LV cards to output connectors

- 4 lines high current
- 11 lines low current or signal.

1.1.3 From HV cards to output connectors

- 1 line HV special protected pin
- 1 line return HV

1.2 CONTROL LINES

1.2.1 From crate controller to LV and HV cards

- data/address D/AD0 - D/AD7
- data strobe $\overline{DS}$
- address strobe $\overline{AS}$
- acknowledge $\overline{ACK}$
- read/write $R/\overline{W}$
- interrupt request $\overline{IRQ}$
- reset $\overline{RESET}$

Total 14 lines

1.2.2 From interlock card to LV cards

- 12 lines I0-I11

  each LV card has individual interlock line

1.2.3 From LV to HV cards

- 48 lines ICH0-ICH47

  each channel of LV allows switch of adequate HV channel.

1.2.4 From interlock connector to interlock card

- 24 lines II00, II01, II10, II11,...,II120, II121.

1.3 BOARD ADDRESS PINS

Each upper connector of LV and HV card has got five pins BA0 - BA4 which code address of card. The pins proper for the card position will be connected to GND on backplane. All will be pulled +5VDC by resistors on card.

2. SCHEMATIC DRAFT OF BACKPLANE , CONNECTOR TYPES AND TERMINATIONS OF CONTROL LINES.

C1 96 pins 603-2-IEC-C096 female connector

C2 32 pins 603-2-IEC-D032 female connector

C3 25 pins D-SUB   male connector

C4 CONEC 24W7   male connector

Control lines D/AD0 - D/AD7, $\overline{DS}$, $\overline{AS}$, $\overline{ACK}$, $R/\overline{W}$, $\overline{IRQ}$, $\overline{RESET}$ will be
terminated on both sides on backplane.

Control lines I0-I11 will be pulled up on LV cards.

SCHEMATIC DRAFT OF BACKPLANE

INTERLOCK

CONTROLLER

I0, I1, ...

LV

OUTPUT

C4

HV

OUTPUT

C4

LV

OUTPUT

C4

• • •

ICH0,ICH1
ICH2,ICH3
....

C1

C1

C1

C1

C1

OUTPUT

OUTPUT

• • •

C4

C4

II00,...II121

OUTPUT

LV

OUTPUT

HV

OUTPUT

LV

• • •

C3

C4

C4

C4

C1

C2

C1

+5 +12 GND EAR.
58V 48 kHz
D0-D7,DS,AS,....

LV lines

HV lines