Correlator rack internal mechanical and electrical specs

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Outline

• Overview; based on A25017N0005 V1.0

• -48 VDC power routing.

• RPMIB/PMCS connections.

• Hi-speed cable routing.

• M&C Ethernet routing.
Hi-speed HM Gbps inter-rack cable

Cooling air in (~1700 cfm)

Data 1000Base-T Ethernet

Power M&C

-48 VDC power in

Rack

Floor

M&C 1000Base-T Ethernet

1000Base-T Ethernet

1000Base-T Ethernet
REAR VIEW

SIDE VIEW

6U crate

Universal strain relief bars

Bottom 12U crate

Approx 9"

Approx 6"
- Need physical demux box and fiber+connectors to test rack prototype mechanics.
- Need to discuss routing of fiber from demux box to Station Boards’ DTS receivers.
COTS 19", 19-position Breaker Panel

-48 VDC bus bar

Breakers

Red mushroom kill switch

48V RET bus bar

Wire bolting points
100-pin SCSI

OUTPUTS
0 21
22
42

+- CM

F1 F2

+- CM

F3 F4

48VR

GND

INPUTS
ID
0 18
19 37

JPRPM IB

DC SSR

cntrl

-48V

Cables from Station Racks

Intra-rack cables

Cables from Station Racks
2 examples from Baseline rack hi-speed wiring plan.

Plan requires update for Phasing Boards…
100-pin SCSI
OUTPUTS

F1 F2

F3 F4

-48 VR

INPUTS
ID

+ CM

+ CM

1 2 3 4 5 6 7 8 9 10 11 21 31 41 51 61 71 81 91

TIMECODE
distribution cables

Hi-speed cables to Baseline racks

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Hi-speed cables to Baseline racks