MC-4000 Connection Guide

External Mode
Pass Through Cards Only – No Internal Controller

Wednesday, January 28, 2015

CHANNEL 2: 16 - PGM, 17 - PST, 18 - PVW, 19 - AUX, 20 - FILL 1, 21 - KEY 1, 22 - FILL 3, 23 - KEY 3, 24 - FILL 2, 25 - KEY 2, 26 - FILL 4, 27 - KEY 4, 28 - BKGND, 29 - LOGO FULL, 30 - RESIZER 2, 31 - REFERENCE

CHANNEL 1: 0 - PGM, 1 - PST, 2 – PVW, 3 - AUX, 4 - FILL 1, 5 - KEY 1, 6- FILL 3, 7 - KEY 3 - 8 - FILL 2, 9 - KEY 2, 10 - FILL 4, 11 - KEY 4, 12 - BKGND, 13 - LOGO FULL, 14 - RESIZER 2, 15 - REFERENCE

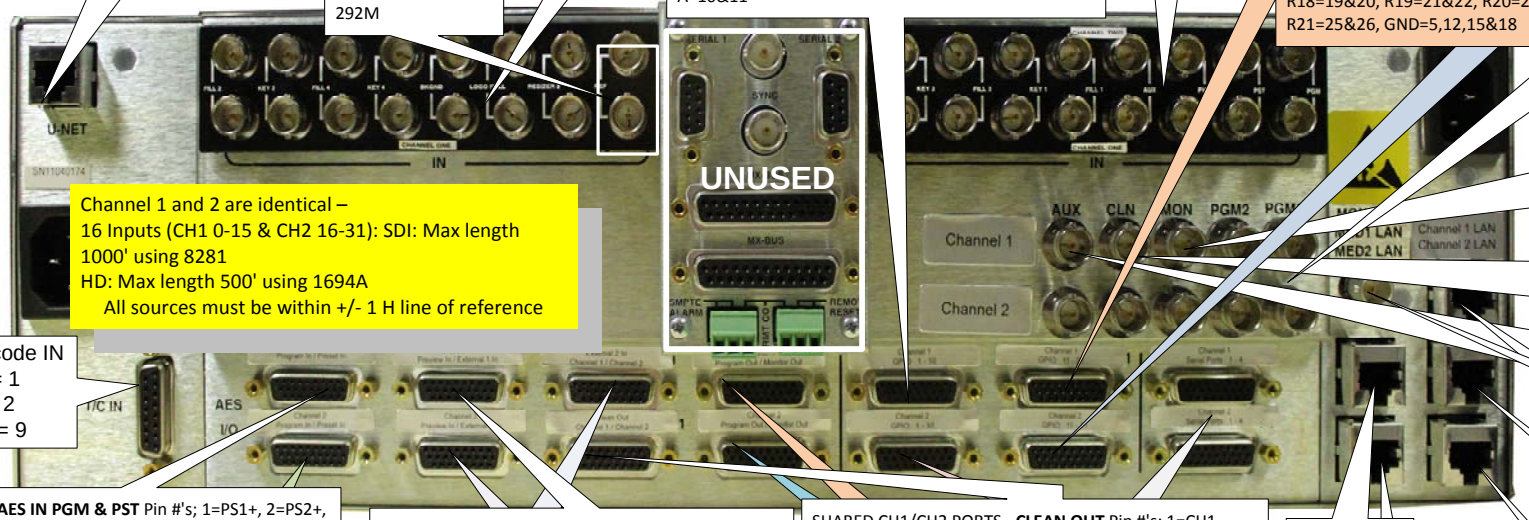
U-NET Port – Connects directly to the SC4/ 400 U-NET port using a standard CAT5 cable. Connect daisy chain via any other U-NET device. The maximum cable length is 1000'.

REFERENCE must be constant Signal: SD = any SMPTE 259M HD = any SMPTE 292M

GPIO 1-10 – Relay Port A Pin #'s ("Rx"=relay number):R1=1&2, R2=3&4, R3=6&7, R4=8&9, R5=13&14, R6=16&17, R7=19&20, R8=21&22, R9=23&24, R10=25&26, GND=5,12,15&18, N/A=10&11

CH 1 - GPIO 11 - 21 - Relay Port B Pin #'s ("Rx"=relay number):R11=1&2, R12=3&4, R13=6&7, R14=8&9, R15=10&11, R16=13&14, R17=16&17, R18=19&20, R19=21&22, R20=23&24, R21=25&26, GND=5,12,15&18

CH2 - GPIO 11-21 - Relay Port B Pin #'s ("Rx"=relay number):R11=1&2, R12=3&4, R13=6&7, R14=8&9, R15=10&11, R16=13&14, R17=16&17, R18=19&20, R19=21&22, R20=23&24, R21=25&26, GND=5,12,15&18



Channel 1 and 2 are identical –
16 Inputs (CH1 0-15 & CH2 16-31): SDI: Max length 1000' using 8281
HD: Max length 500' using 1694A
All sources must be within +/- 1 H line of reference

PROGRAM OUT - 2 Connections; 1 for downstream devices and 1 for monitoring

MONITOR OUT – Monitors the Preset Bus ONLY.

PREVIEW or Clean Feed Out – Configurable as either type

AUX OUT – Additional Spare Output

MON OUT - Future

SCX LAN - Unused

Timecode IN
TC+ = 1
TC- = 2
GND = 9

CH 1 - **AES IN PGM & PST** Pin #'s; 1=PS1+, 2=PS2+, 3=PS3+, 4=PS4+, 5=PG1+, 6=PG2+, 7=PG3+, 8=PG4+, 11=PS1-, 12=PS2-, 13=PS3-, 14=PS4-, 15=PG1-, 16=PG2-, 17=PG3-, 18=PG4-, 19=PS1gnd, 20=PS2gnd, 21=PS3gnd, 22=PS4gnd, 23=PM1gnd, 24=PG2gnd, 25=PG3gnd, 26=PG4gnd

CH1 - AES IN / PVW & EXT1 Pin #'s; 1=P1+, 2=P2+, 3=P3+, 4=P4+, 5=E1+, 6=E2+, 7=E3+, 8=E4+, 11=P1-, 12=P2-, 13=P3-, 14=P4-, 15=E1-, 16-E2-, 17=E3-, 18=E4-, 19=P1gnd, 20=P2gnd, 21=P3gnd, 22=P4gnd, 23=E1gnd, 24=E2gnd, 25=E3gnd, 26=E4gnd

SHARED CH1/CH2 PORTS - **CLEAN OUT** Pin #'s; 1=CH1 CL1+, 2=CH1 CL2+, 3=CH1 CL3+, 4=CH1 CL4+, 5=CH2 CL1+, 6=CH2 CL2+, 7=CH2 CL3+, 8=CH2 CL4+, 11=CH1 CL1-, 12=CH1 CL2-, 13=CH1 CL3-, 14=CH1 CL4-, 15=CH2 CL1-, 16=CH2 CL2-, 17=CH2 CL3-, 18=CH2 CL4-, 19=CH1 CL1gnd, 20=CH1 CL2gnd, 21=CH1 CL3gnd, 22=CH1 CL4gnd, 23=CH2 CL1gnd, 24=CH2 CL2gnd, 25=CH2 CL3gnd, 26=CH2 CL4gnd

MED 1 LAN – Future Graphics Port

MED 2 LAN – Future Graphics Port

CH 1 LAN – Standard Ethernet Connection. We recommend the Ethernet system include only Utah Scientific Equipment

CH 2 LAN – Standard Ethernet Connection. We recommend the Ethernet system include only Utah Scientific Equipment

CH 2 - **AES IN PGM & PST** Pin #'s; 1=PS1+, 2=PS2+, 3=PS3+, 4=PS4+, 5=PG1+, 6=PG2+, 7=PG3+, 8=PG4+, 11=PS1-, 12=PS2-, 13=PS3-, 14=PS4-, 15=PG1-, 16=PG2-, 17=PG3-, 18=PG4-, 19=PS1gnd, 20=PS2gnd, 21=PS3gnd, 22=PS4gnd, 23=PM1gnd, 24=PG2gnd, 25=PG3gnd, 26=PG4gnd

CH2 - AES IN / PVW & EXT1 Pin #'s; 1=P1+, 2=P2+, 3=P3+, 4=P4+, 5=E1+, 6=E2+, 7=E3+, 8=E4+, 11=P1-, 12=P2-, 13=P3-, 14=P4-, 15=E1-, 16-E2-, 17=E3-, 18=E4-, 19=P1gnd, 20=P2gnd, 21=P3gnd, 22=P4gnd, 23=E1gnd, 24=E2gnd, 25=E3gnd, 26=E4gnd

CH1 - AES Out – PGM/MON Pin #'s; 1=M1+, 2=M2+, 3=M3+, 4=M4+, 5=P1+, 6=P2+, 7=P3+, 8=P4+, 11=M1-, 12=M2-, 13=M3-, 14=M4-, 15=P1-, 16=P2-, 17=P3-, 18=P4-, 19=M1gnd, 20=M2gnd, 21=M3gnd, 22=M4gnd, 23=P1gnd, 24=P2gnd, 25=P3gnd, 26=P4gnd

SHARED CH1/CH2 PORTS - **EXTERNAL 2** Pin #'s; 1=CH1 E2 1+, 2=CH1 E2 2+, 3=CH1 E2 3+, 4=CH1 E2 4+, 5=CH2 E2 1+, 6=CH2 E2 2+, 7=CH2 E2 3+, 8=CH2 E2 4+, 11=CH1 E2 1-, 12=CH1 E2 2-, 13=CH1 E2 3-, 14=CH1 E2 4-, 15= CH2 E2 1-, 16=CH2 E2 2-, 17=CH2 E2 3-, 18=CH2 E2 4-, 19=CH1 E2 1gnd, 20=CH1 E2 2gnd, 21=CH1 E2 3gnd, 22=CH1 ED 4gnd, 23=CH2 E2 1gnd, 24=CH2 E2 2gnd, 25=CH2 E2 3gnd, 26=CH2 E2 4gnd

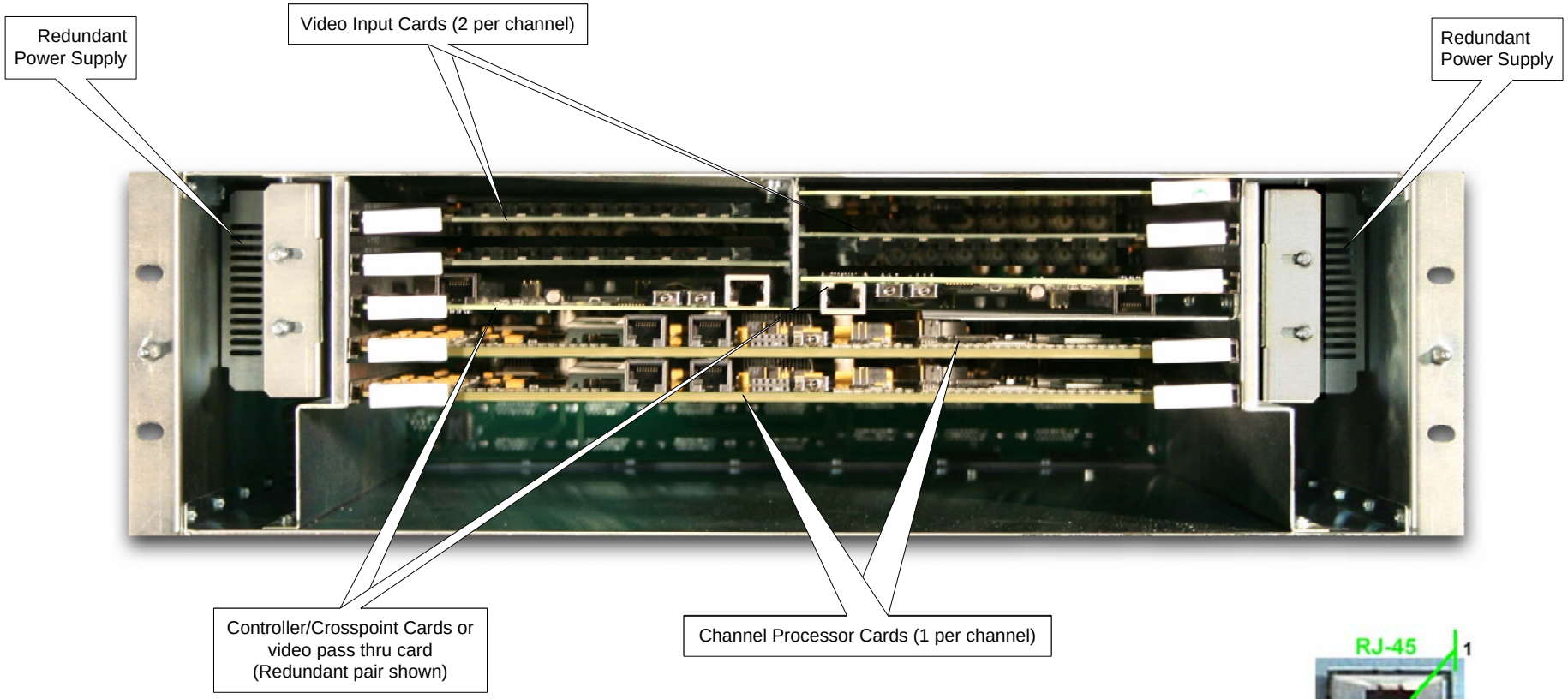
4) RS-422 or 232 Serial Ports & Pin#'s. RS-232; 2=RX, 3=TX, 5=GND. RS-422; 1=CD. 2=RX-, 3=TX+, 4=TC, 5=GND, 6=RC, 7=RX+, 8=TX-, 9=GND (applies to quad cable)

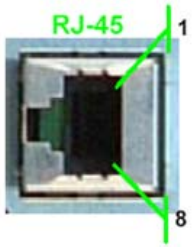
CH2 - AES Out – PGM/MON Pin #'s; 1=M1+, 2=M2+, 3=M3+, 4=M4+, 5=P1+, 6=P2+, 7=P3+, 8=P4+, 11=M1-, 12=M2-, 13=M3-, 14=M4-, 15=P1-, 16=P2-, 17=P3-, 18=P4-, 19=M1gnd, 20=M2gnd, 21=M3gnd, 22=M4gnd, 23=P1gnd, 24=P2gnd, 25=P3gnd, 26=P4gnd

CH2 - GPIO 1-10 – Relay Port A Pin #'s ("Rx"=relay number):R1=1&2, R2=3&4, R3=6&7, R4=8&9, R5=13&14, R6=16&17, R7=19&20, R8=21&22, R9=23&24, R10=25&26, GND=5,12,15&18, N/A=10&11

MC-4000 Front View Guide

Wednesday, January 28, 2015





Note: your system may contain 2 master control systems in 1 chassis.