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ICD 1.0 version for NAOMI WFS Camera

Part three- Pre-amp circuit, Cabling and Grounding

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1.Pre-amp circuit inside the CCD header

Four channel single input and differential output pre_amp circuit has been built for NAOMI CCD header. There is also a receiver board built for SDSU controller to enable it to convert the differential signal into single-ended signal. At present system, the pre-amp circuit and the receiver circuit are not used, there are straight line sold on board to pass the circuit.

(U:\sw4\atc_naomi\naomi-0.1\docs\camera\naomi_ICD_parthree.doc). See enclosed diagram for details (naomipre.prj -Protel file)

2. Pre-amp circuit PCB layout

there are different layout for master and slave CCD respectively.

(U:\sw4\atc_naomi\naomi-0.1\docs\camera\naomi_ICD_parthree.doc).

See enclosed diagram for details. (bdlayout.vsd-visio file, J1525ch3.pdf-acrobat file)

3. Ground arrangement for the controller

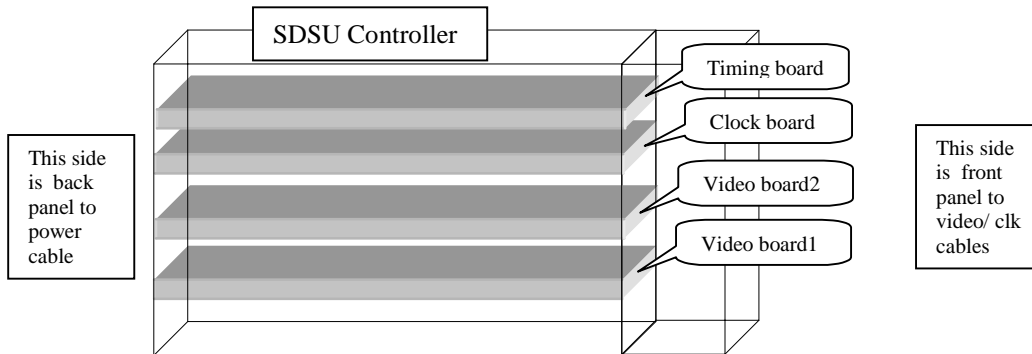
(U:\sw4\atc_naomi\naomi-0.1\docs\camera\naomi_ICD_parthree.doc). See enclosed diagram for details. (gnding.vsd-visio file)

4. Cabling for video bias and clock from SDSU controller to the CCD header

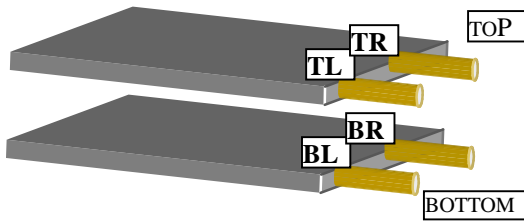
(U:\sw4\atc_naomi\naomi-0.1\docs\camera\naomi_ICD_parthree.doc). See enclosed diagram for details.(naomicable2.xls- Excel file)

5. The new set and old set video cables connection inside SDSU controller

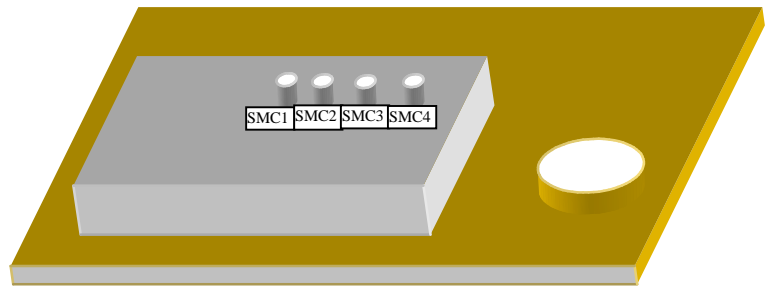
1). The board layout inside SDSU controller



2). The SMA connectors on video board



The receiver board for old set cable



3). The 4 black coaxial cables connect to:

	TR	TL	BR	BL
New set	A1	A3	A5	A7
Old set	SMC4	SMC3	SMC2	SMC1
CCD output (pre_amp board output)	OS4 (outD1)	OS3 (OutC1)	OS2(OutB1)	OS1(OutA1)

6. Appendix

Circuit board and cabling for NAOMI Camera ==controller

1). Pre-amp board : ONE

put R1,R2,R3,R4,R5,R6,R7,R8,R9,R10,R11,R12,R13,R14,R15,R17 (1M)

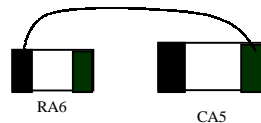
c1,c2,c3,c4,c5,c6 (.1uF)

J6,J7,J8,J9,J10,J11,J12,J13 on

sold wire from Pad to Pad(choose as thick as possible)

CA5 to RA6, RA7 to RA2

CB5 to RB6, RB7 to RB2



CC5 to RC6, RC7 to RC2
CD5 to RD6, RD7 to RD2

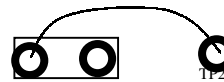


doc: Bill of Material for M:\ATC\naomi\schematic\Naomipre.Prj
components for pre-amp board

2). Receiver board : ONE

Put P1 (D50) on, another D9 on see me about that
sold wire from Pad to Pad(choose as thick as possible)

RA1 to TP2



RB1 to TP4

RC1 to TP6

RD1 to TP8

3). Cabling : one set

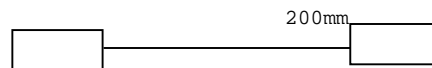
see naomicable1.xls

Cabling for video and bias

one D50F == AMP26 cable skt (strain relief, RS 450-556, 62GB-585-126S)

one IDC26 skt == AMP26 chassis plug()

four SMA plug == SMB plug (coaxial cable RG174)



one D25F skt == D9F plus header housing

one D25F skt == the same D9F

Cabling for clock

One D37F == AMP19 chassis skt

One AMP19 cable plug (strain relief)====

AMP19 cable skt (strain relief, RS 450-540,
62GB-585-14-19S)

One AMP19 chassis plug == IDC26 skt

