

3272_UAZNPE24S

Most recent REV DATE : Mar - 29, 06 Yellow = NOT COMPLETE YET

Final Documentation will show all updates or more information.
sensors, heaters, switches are not in this section.

page #

| | |
|---|-------------------|
| 1 | Cover - this page |
|---|-------------------|

ARRAY SECTION

| | |
|---|---|
| 2 | Overall Array section Block Diagram |
| 3 | HAWAII - 2 Internal Cables Wiring Diagram, for comparison to HAWAII - 1 Internal Cables |
| 4 | HAWAII - 1 Internal Cables Wiring Diagram |

HAWAII - 1, F25 Fanout Board

| | |
|------|--|
| note | Fanout Board will have MDM connectors mounted on the component side of board. sample board is # 002 - J1 and J2 mounted on opposite side. (# order reversed) |
|------|--|

HAWAII 1 - Fanout Board connectors to Matting Bracket connectors

| | |
|---|---|
| 5 | Device Dependent Wiring Harness 1 - 1 and 1 - 2 |
| 6 | Device Dependent Wiring Harness 1 - 3 |

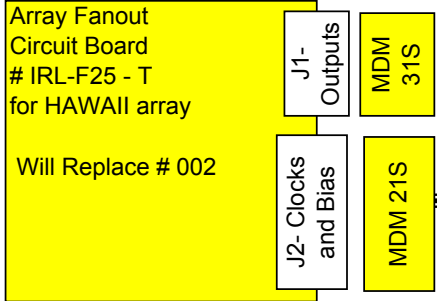
Bracket cable connectors to Case connectors

| | |
|---|---|
| 7 | Device Independent Wiring Harness # 1 , (MDM37 to 41 pin for Outputs) |
| 8 | Device Independent Wiring Harness # 2 , (MDM21P to 26 pin for Clocks) |
| 9 | Device Independent Wiring Harness # 3 , (MDM21S to 19 pin for Bias) |

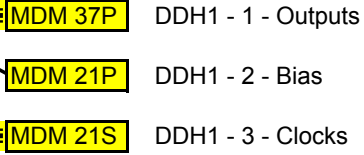
External Cables

| | |
|----|-----------------------------------|
| 10 | DB37 - External Analog Cable - A |
| 11 | DB37 - External Analog Cable - B |
| 12 | 19 pin - External Bias Cable |
| 13 | 26 pin - External Clocks Cable |
| 14 | DB9 - External Power Supply Cable |

Dewar Array Components

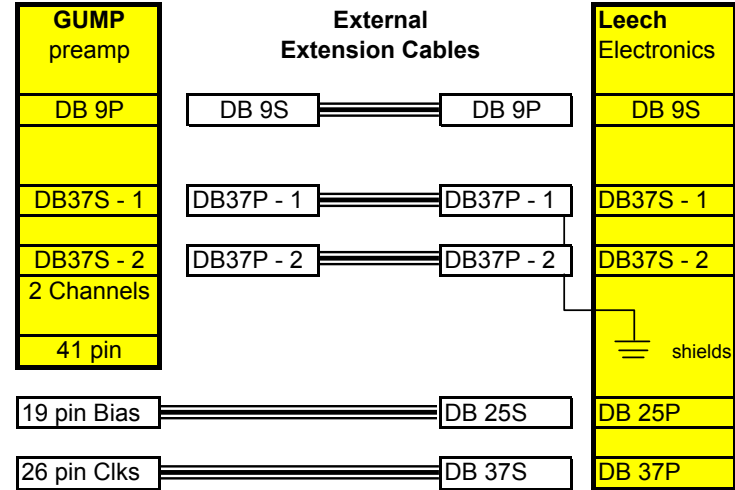
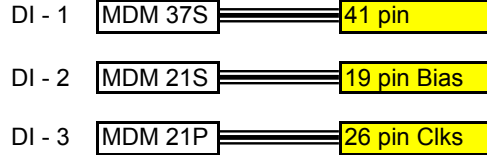


Device Dependent Cable Set # 1

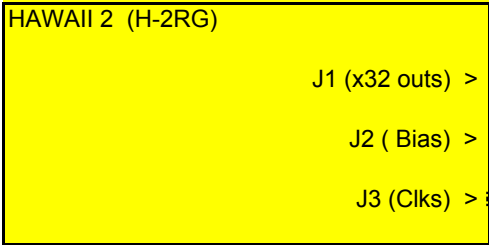


Device Independent Wiring Harness

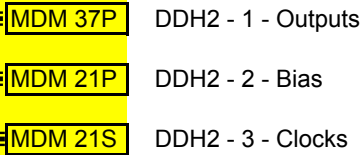
Mounting Bracket Case



DOES NOT EXIST YET



Device Dependent Cable Set # 2



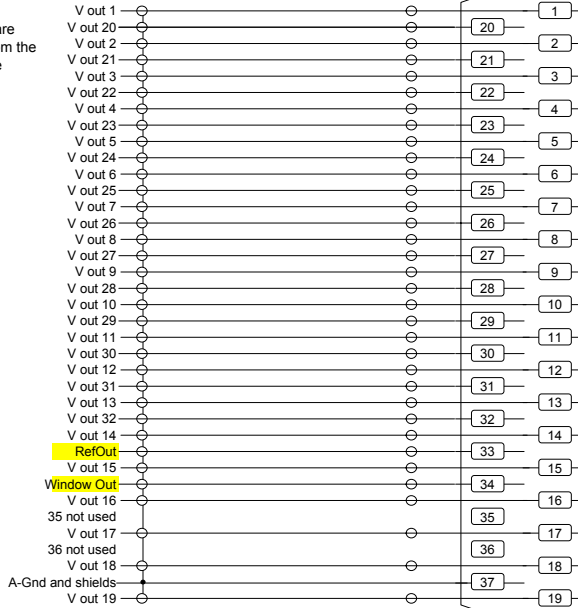
J1 - Outputs

HAWAII - 2 names

x34 - SS coax and x1 - 5 mil Copper

Outputs connector
Face view of DB 37 P

HAWAII 2 Array connecting cables are directly attached from the Fanout Board to the matting Bracket connectors.



70 connections shields combined to pin # 37

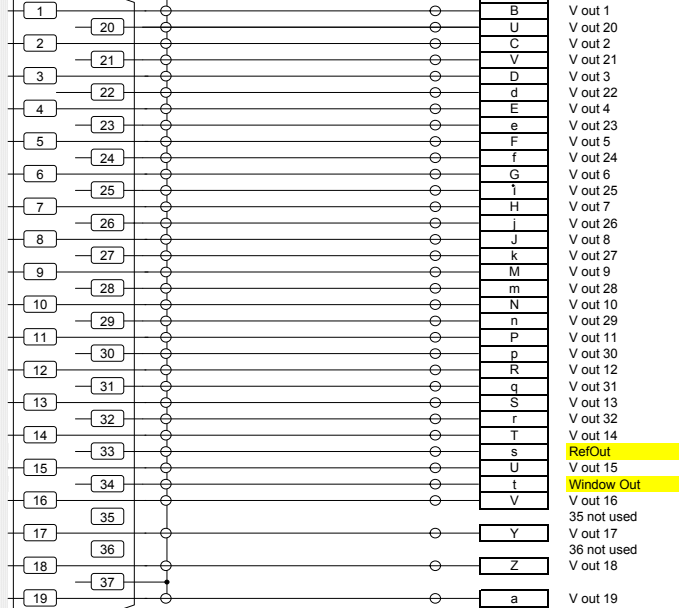
35 connections shields not connected

Bracket Connectors

Outputs connector
Face view of MDM 37S

Outputs connector
41 pin connector

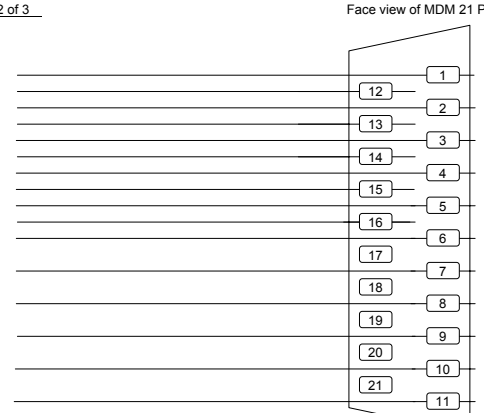
x34 - SS coax and x1 - 5 mil Copper



70 connections shields combined to pin # 37

35 connections shields not connected

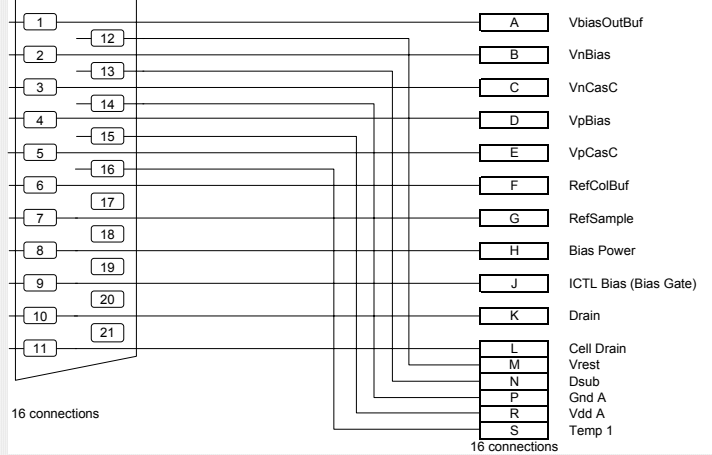
HAWAII 2 Array connecting cables are directly attached from the Fanout Board to the matting Bracket connectors.



3 connections

Face view of MDM 21 S

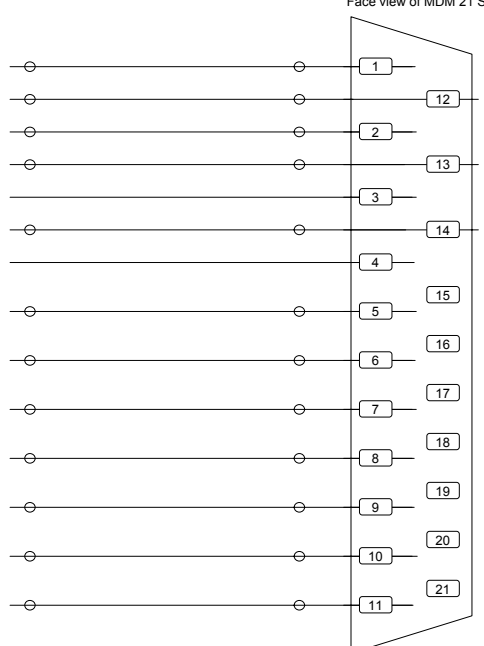
Bias Connector
19 pin Case Connector



16 connections

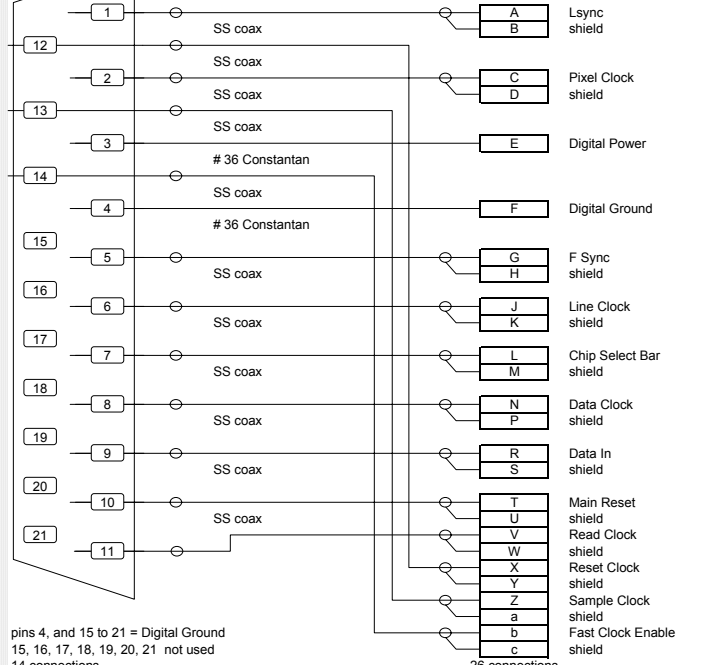
16 connections

HAWAII 2 Array connecting cables are directly attached from the Fanout Board to the matting Bracket connectors.



Face view of MDM 21 P

Clocks Connector
26 pin Case Connector



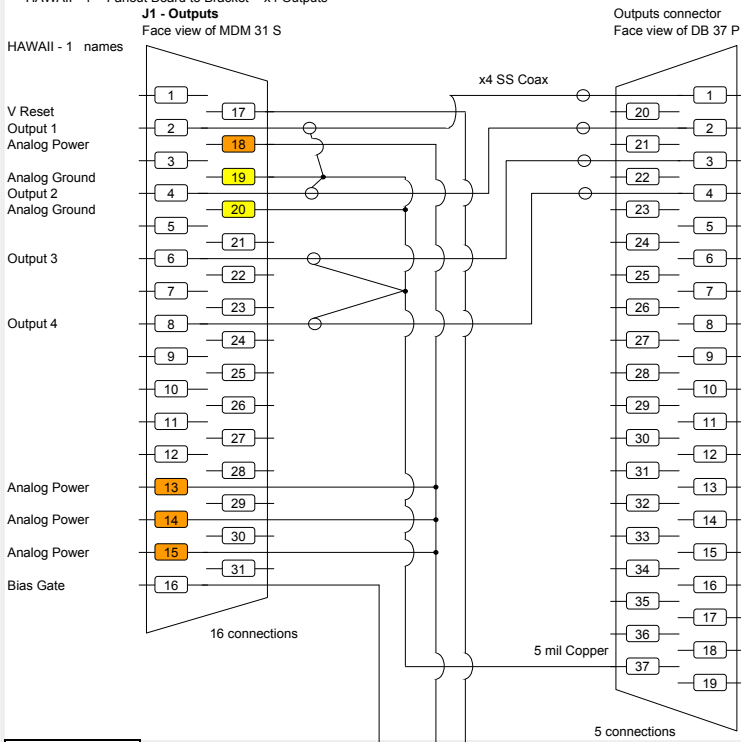
pins 4, and 15 to 21 = Digital Ground
15, 16, 17, 18, 19, 20, 21 not used
14 connections

26 connections

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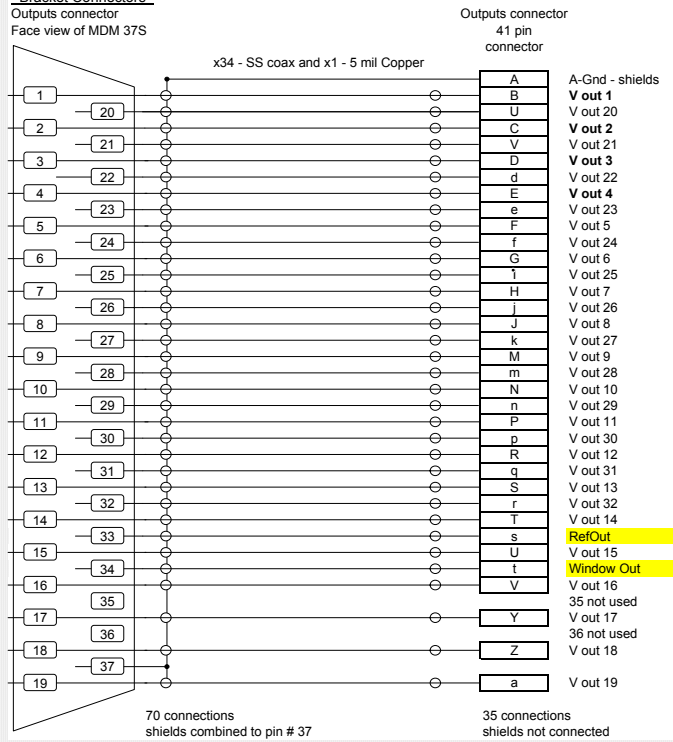
H1 - Device - Dependent Wiring Harness 1 of 3

HAWAII - 1 - Fanout Board to Bracket - x4 Outputs



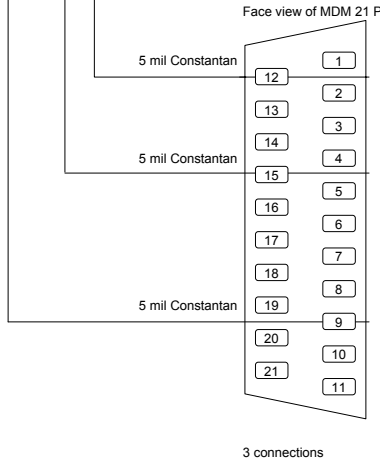
Device - Independent Wiring Harness 1 of 3

Bracket Connectors

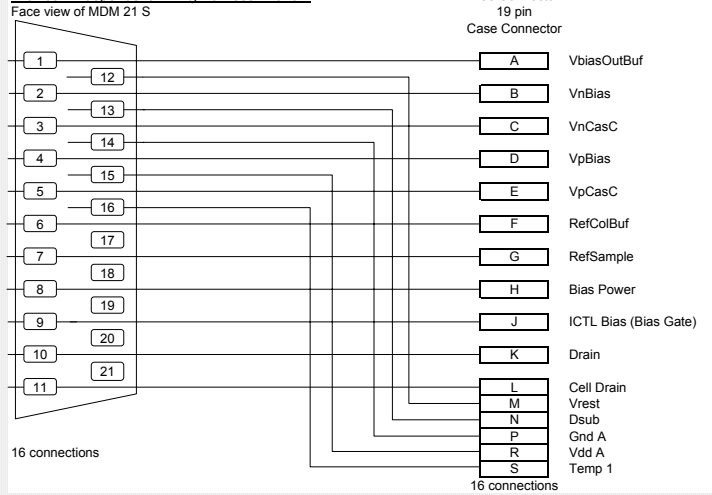


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H1 - Device - Dependent Wiring Harness 2 of 3

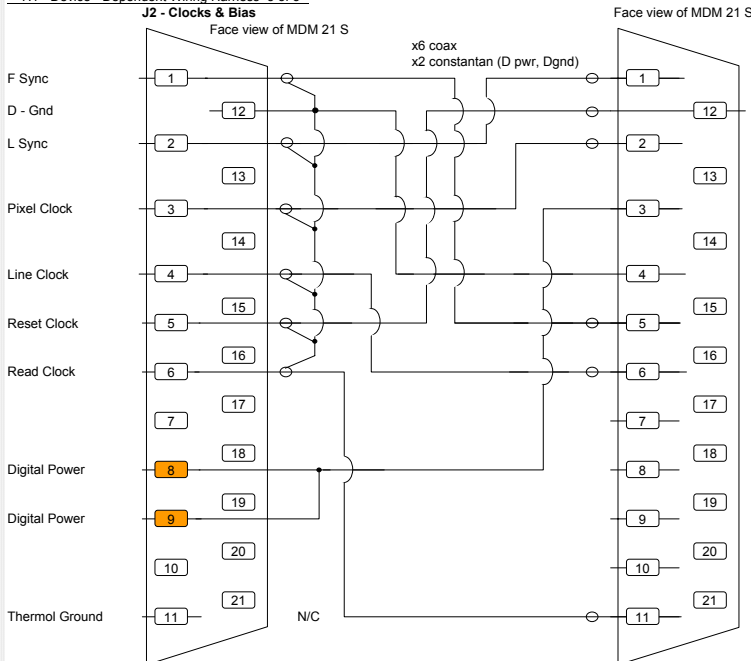


Device - Independent Wiring Harness 2 of 3



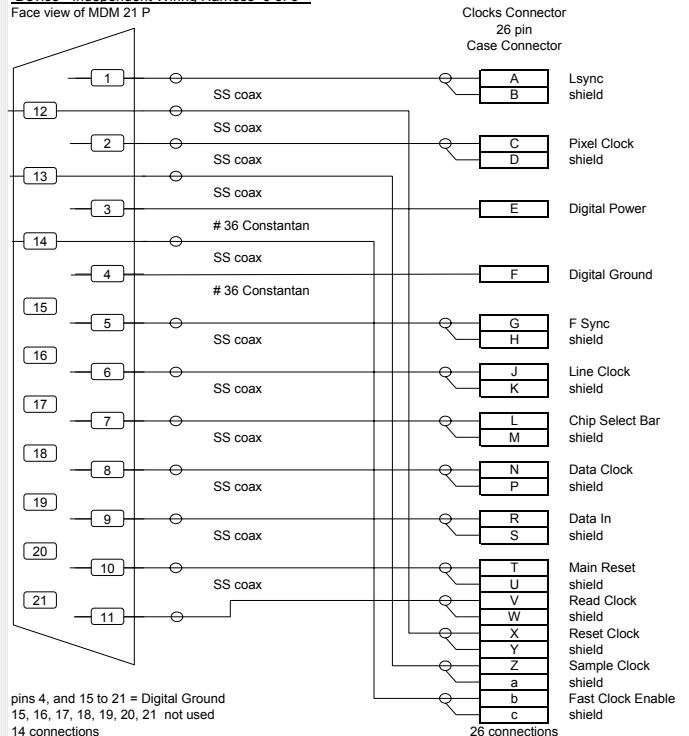
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H1 - Device - Dependent Wiring Harness 3 of 3



Attach Shields to Digital Ground on board side ?

Device - Independent Wiring Harness 3 of 3



HAWAII - 1 - Fanout Board to Bracket

J1 - Outputs

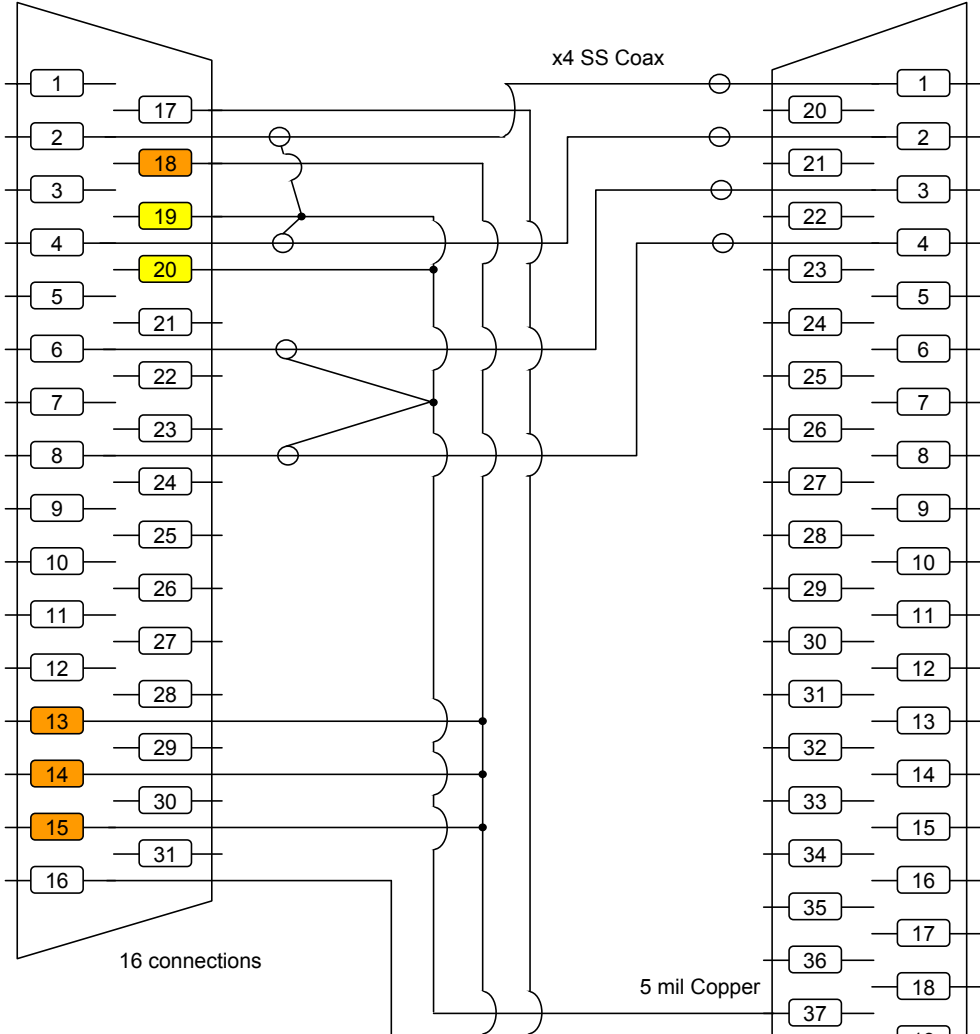
Face view of MDM 31 S

Outputs connector

Face view of DB 37 P

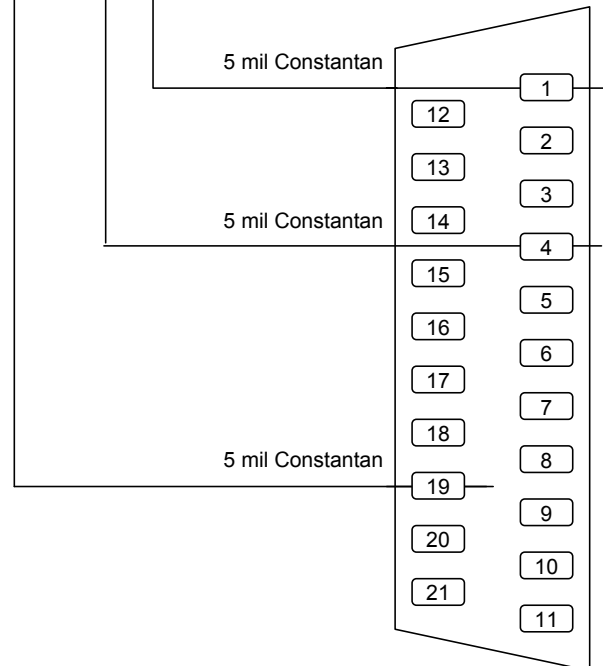
HAWAII - 1 names

- V Reset
- Output 1
- Analog Power
- Analog Ground
- Output 2
- Analog Ground
- Output 3
- Output 4
- Analog Power
- Analog Power
- Analog Power
- Bias Gate



Bias Connector

Face view of MDM 21 P

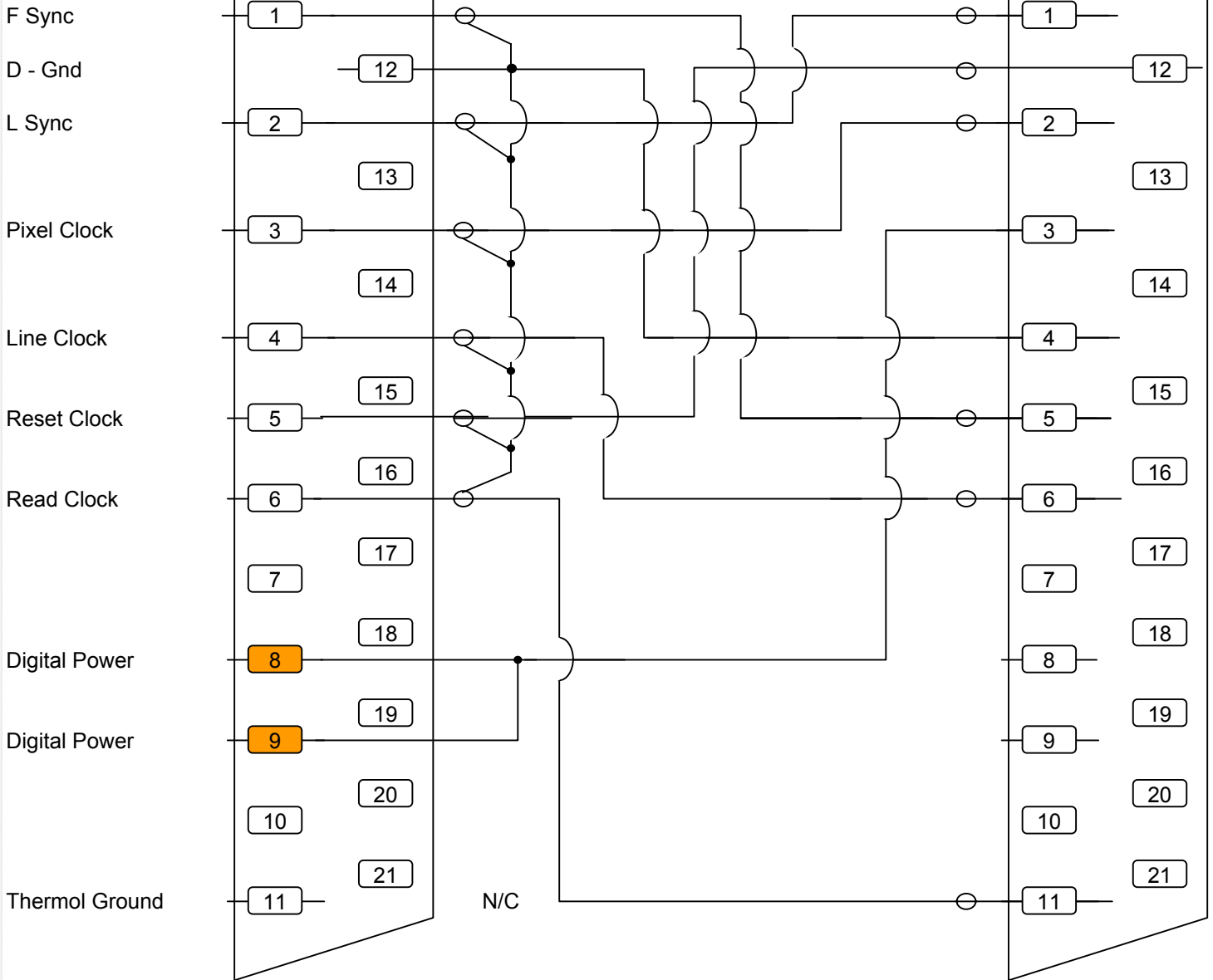


J2 - Clocks

Clocks connector

Face view of MDM 21 S

Face view of MDM 21 S



Attach Shields to Digital Ground on board side

Device - Independent Wiring Harness 1 of 3 Outputs connector

Mounting Bracket

41 pin
Arranged to
Match
GUMP

Face view of MDM 37S

H-2RG List:

- V out 1
- V out 20
- V out 2
- V out 21
- V out 3
- V out 22
- V out 4
- V out 23
- V out 5
- V out 24
- V out 6
- V out 25
- V out 7
- V out 26
- V out 8
- V out 27
- V out 9
- V out 28
- V out 10
- V out 29
- V out 11
- V out 30
- V out 12
- V out 31
- V out 13
- V out 32
- V out 14

RefOut

- V out 15

Window Out

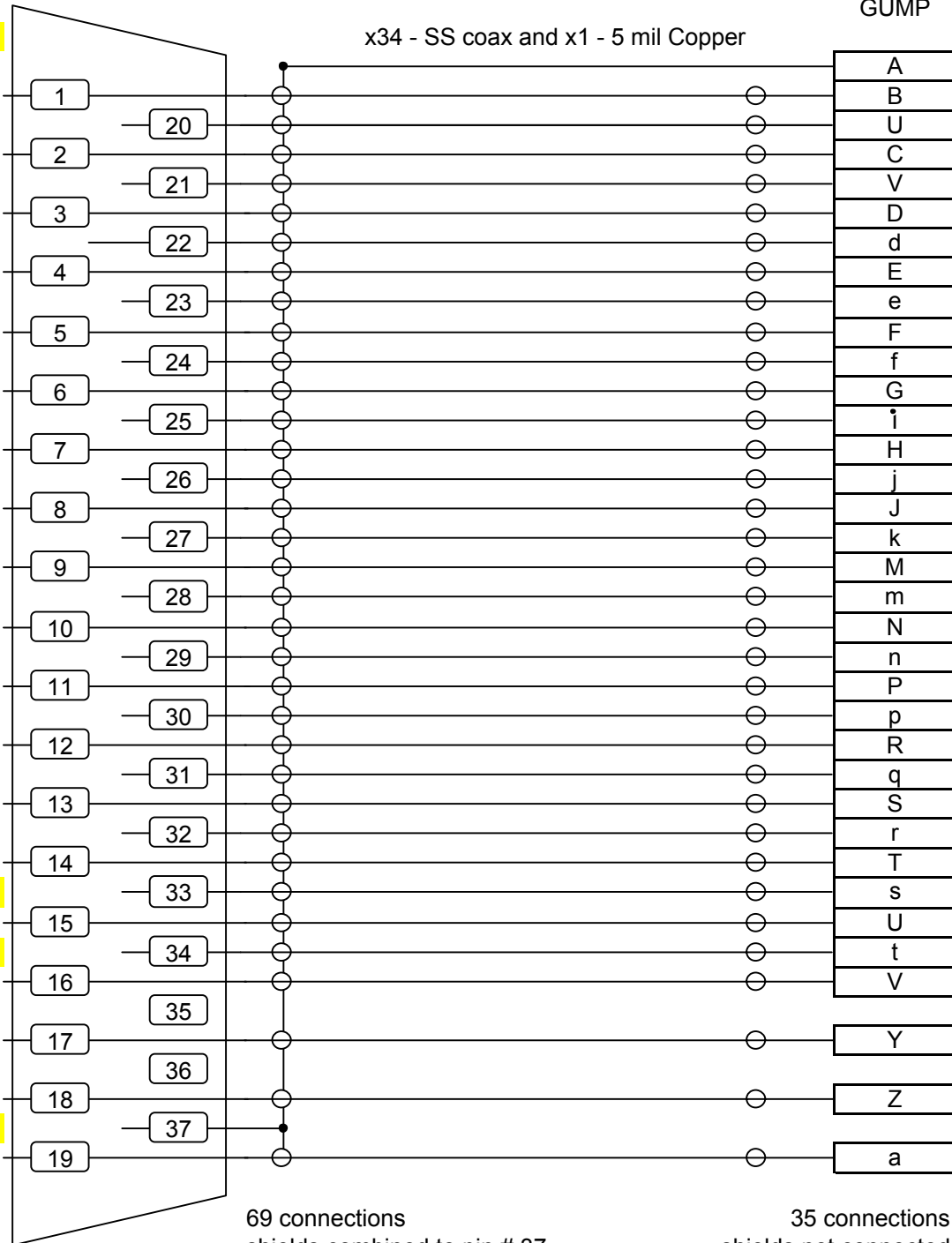
- V out 16
- not used

- V out 17
- not used

- V out 18

shields / Gnd

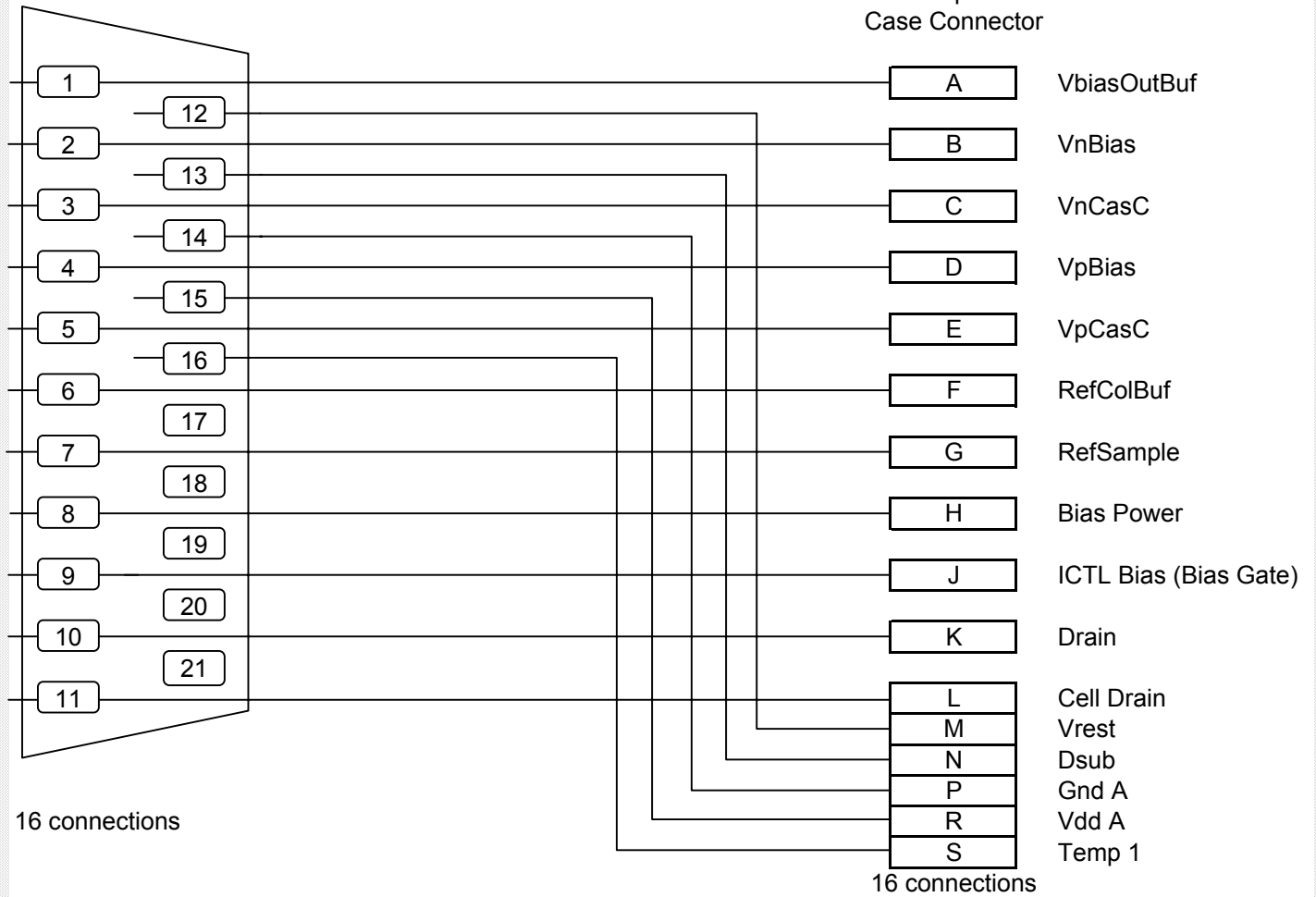
- V out 19



Device - Independent Wiring Harness 2 of 3

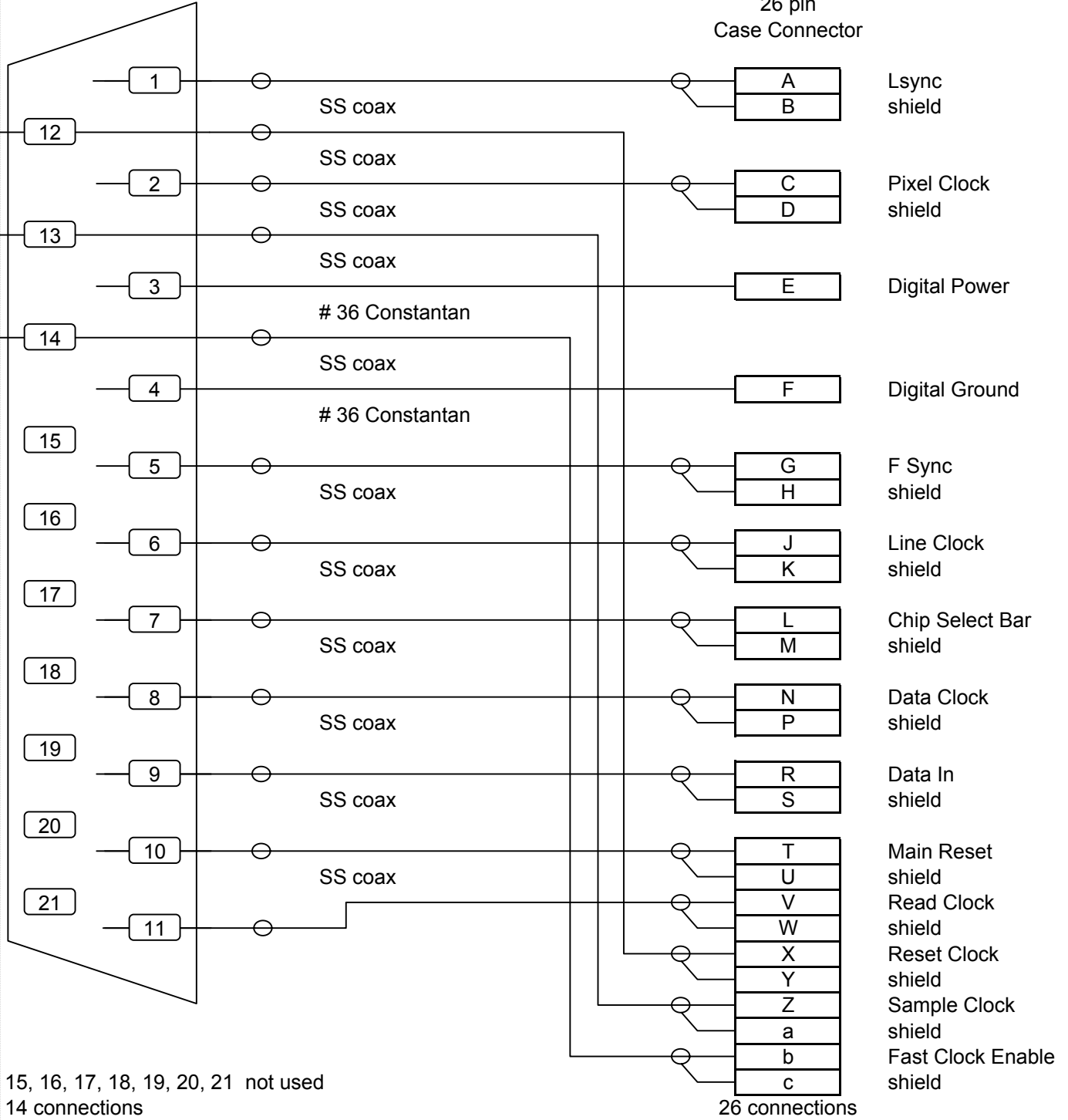
Face view of MDM 21 S

Bias Connector
19 pin
Case Connector



Device - Independent Wiring Harness 3 of 3

Face view of MDM 21 P

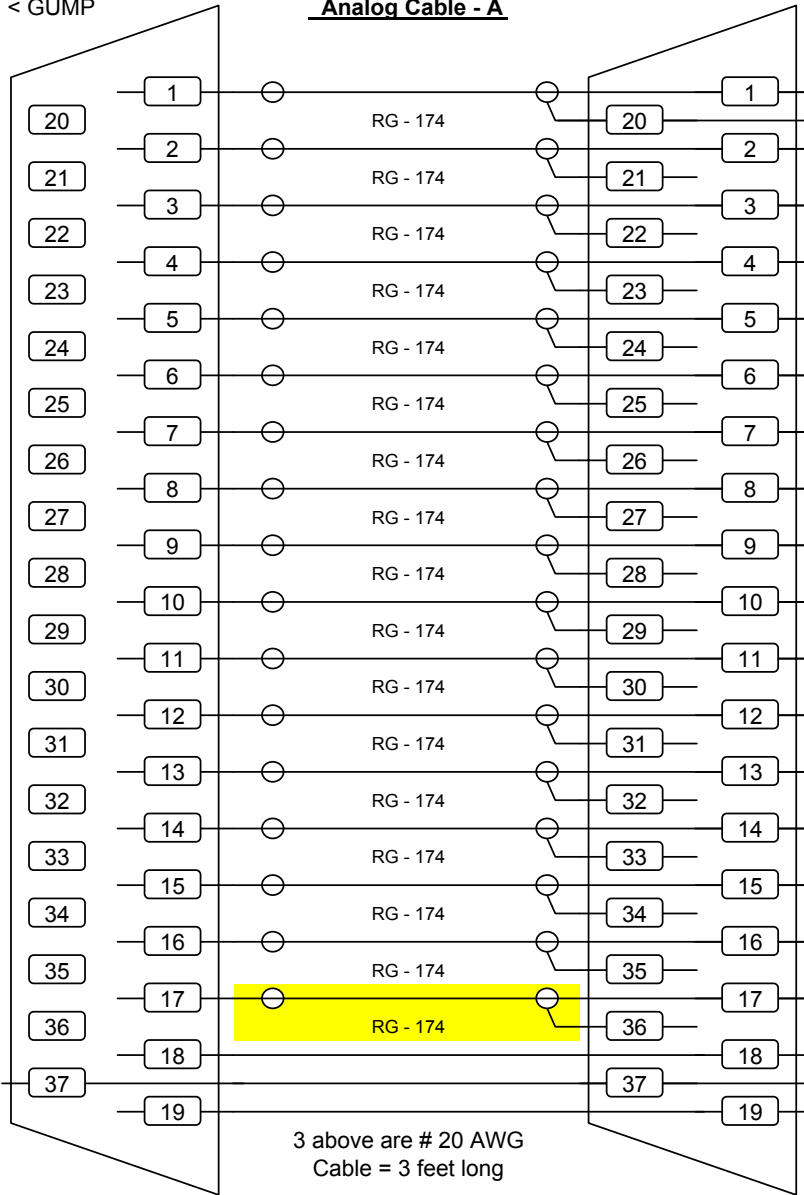


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Face view of DB 37 P
 < GUMP

Face view of DB 37 P

Analog Cable - A



(20 connections)

Leech >
 Functions

| |
|------------------------------|
| Output # 1 |
| shield / gnd |
| Output # 2 |
| shield / gnd |
| Output # 3 |
| shield / gnd |
| Output # 4 |
| shield / gnd |
| Output # 5 |
| shield / gnd |
| Output # 6 |
| shield / gnd |
| Output # 7 |
| shield / gnd |
| Output # 8 |
| shield / gnd |
| Output # 9 |
| shield / gnd |
| Output # 10 |
| shield / gnd |
| Output # 11 |
| shield / gnd |
| Output # 12 |
| shield / gnd |
| Output # 13 |
| shield / gnd |
| Output # 14 |
| shield / gnd |
| Output # 15 |
| shield / gnd |
| Output # 16 |
| shield / gnd |
| Output # 33 RefOut |
| shield / gnd |
| offset channels 1 - 16 & #33 |
| Ground |
| offset channels 17 - 32 & 34 |

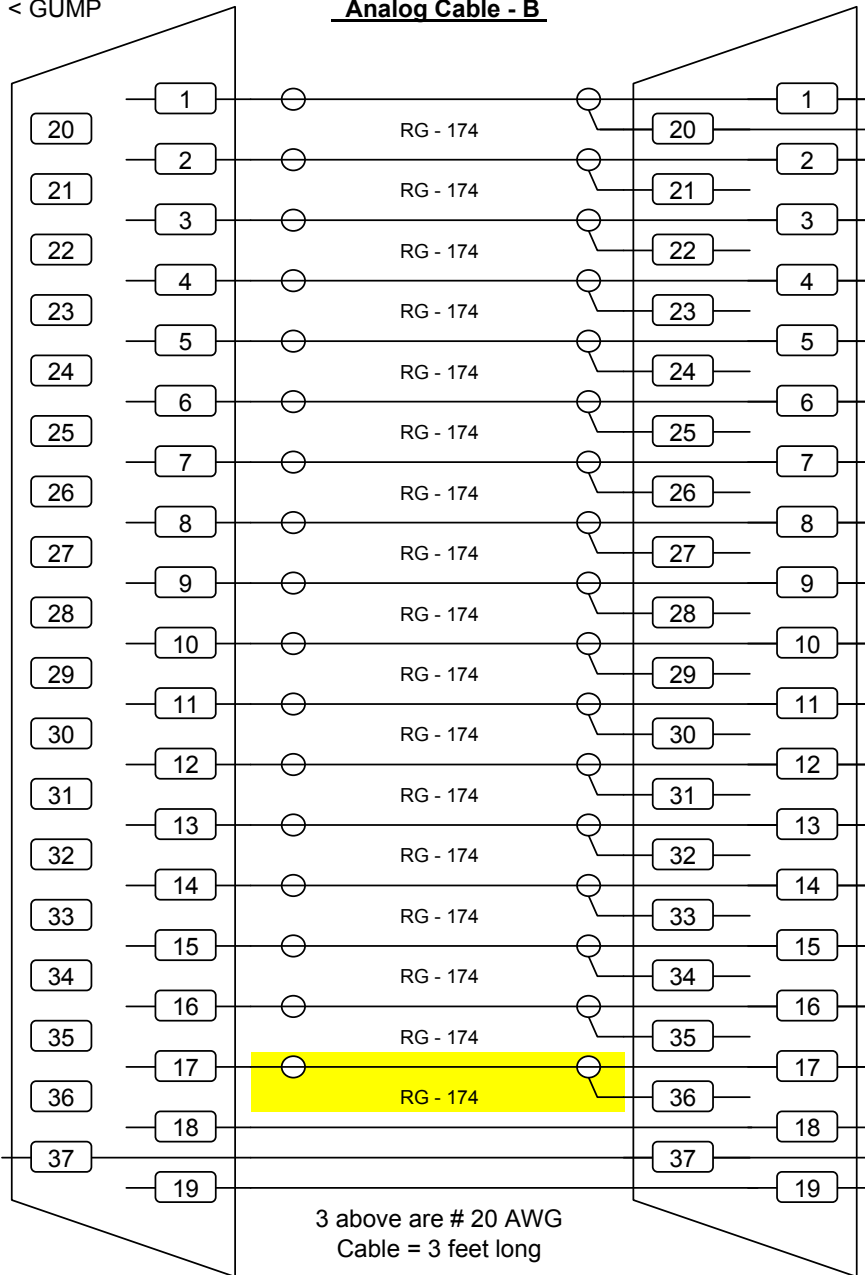
(37 connections)

3272_UAZNPE24S

Face view of DB 37 P
 < GUMP

Face view of DB 37 P

Analog Cable - B



(20 connections)

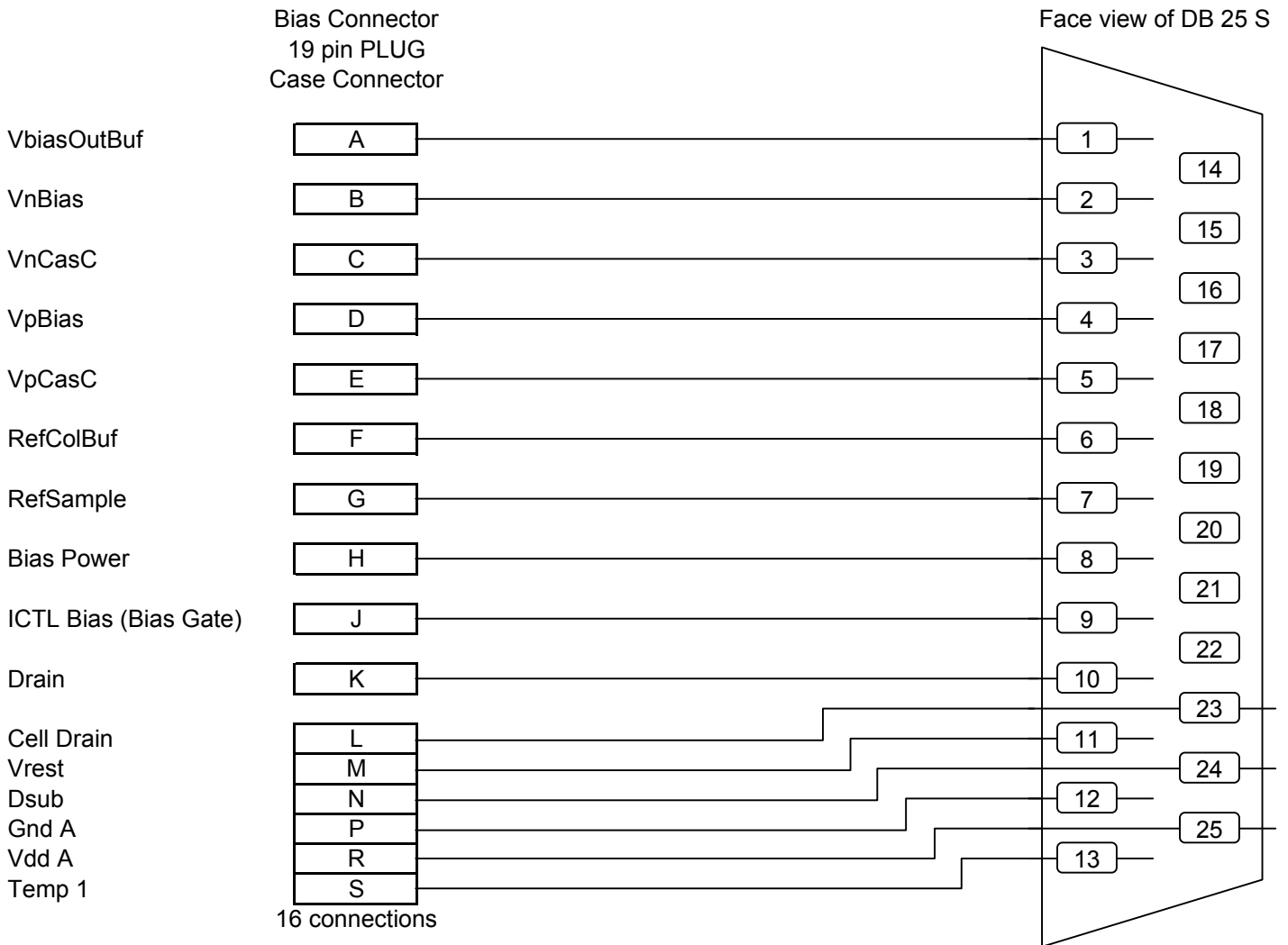
Leech >
Functions

| |
|---|
| Output # 17 |
| shield / gnd |
| Output # 18 |
| shield / gnd |
| Output # 19 |
| shield / gnd |
| Output # 20 |
| shield / gnd |
| Output # 21 |
| shield / gnd |
| Output # 22 |
| shield / gnd |
| Output # 23 |
| shield / gnd |
| Output # 24 |
| shield / gnd |
| Output # 25 |
| shield / gnd |
| Output # 26 |
| shield / gnd |
| Output # 27 |
| shield / gnd |
| Output # 28 |
| shield / gnd |
| Output # 29 |
| shield / gnd |
| Output # 30 |
| shield / gnd |
| Output # 31 |
| shield / gnd |
| Output # 32 |
| shield / gnd |
| Output # 34 Window Out |
| shield / gnd |
| offset channels 1 - 16 & #33 |
| Ground |
| offset channels 17 - 32 & 34 |

(37 connections)

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Device - Independent External Wiring Harness 2 of 3



Function

| |
|--------------------|
| -15 V preamp power |
| Vs Analog Ground |
| -15 V preamp power |
| Vs Analog Ground |
| Vs Analog Ground |
| Vs Analog Ground |
| +15 V preamp power |
| Vs Analog Ground |
| +15 V preamp power |

GUMP Preamp Connectors
Face view of DB - 9 S

Face view of DB - 9 M

