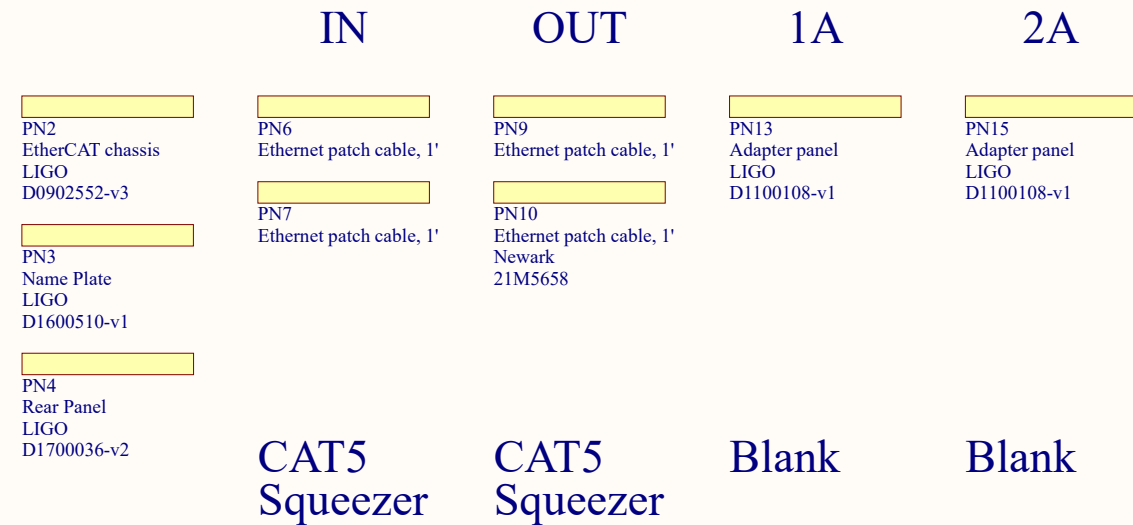


Mount the terminal block on spare DIN rail space.
Use the terminal block to distribute the 24V supply.

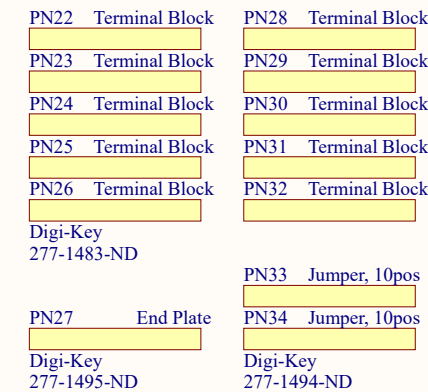
This EtherCAT chassis uses copper only.
Mount the modular adapters to the front panel.
Using CAT5 patch cables:

- Connect the front panel input to the first coupler (left rail).
- Connect the output of the first coupler to the input of the second one.
- Connect the output of the second coupler to the input of the third one.
- Connect the front panel output to the output of the last coupler (right rail).

Ports



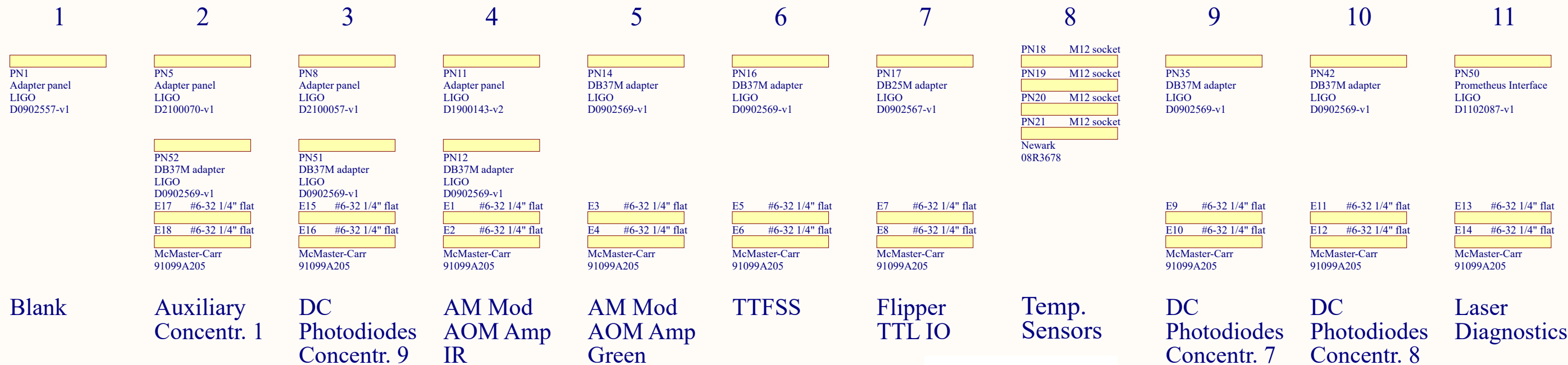
TBLOCK



Alternative terminal block:
- Phoenix 2315272
- Phoenix 2315269

Alternative DC-DC supply:
- Mean Well DDR-15G-5

Slots



| M12 | Color | PT100 |
|-----|-------|-------|
| 1 | brown | RL+ |
| 2 | white | R+ |
| 3 | blue | RL- |
| 4 | black | R- |

| | | |
|---|---------------------------|----------------------|
| Title EtherCAT Squeezer 3 | | |
| Size B | Number D1600509 | Revision 4 |
| Date: 2/12/2021 | Sheet 1 of 4 | |
| File: C:\Users\...\EtherCATSqueezerC1.SchDoc | Drawn By: Daniel Sigg | |

B1
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B2
EK1101
EtherCAT coupler w/ ID switch

B3
EL3104
4-channel analog input terminals, differential, 16 bits

B4
EL3104
4-channel analog input terminals, differential, 16 bits

B5
EL1124
4-channel digital input terminals, 5V

B6
EL9190
Feed terminal, arbitrary voltage

B7
EL2124
4-channel digital output terminals, 5V

B8
EL2124
4-channel digital output terminals, 5V

B9
EL2124
4-channel digital output terminals, 5V

B10
EL2124
4-channel digital output terminals, 5V

B11
EL3104
4-channel analog input terminals, differential, 16 bits

B12
EL3104
4-channel analog input terminals, differential, 16 bits

B13
EL9410
Power supply terminals for E-bus, diagnostics

B14
EL2124
4-channel digital output terminals, 5V

B15
EL2124
4-channel digital output terminals, 5V

B16
EL2124
4-channel digital output terminals, 5V

B17
EL3102
2-channel analog input terminals, differential, 16 bits

B18
EL3104
4-channel analog input terminals, differential, 16 bits

B19
EL3104
4-channel analog input terminals, differential, 16 bits

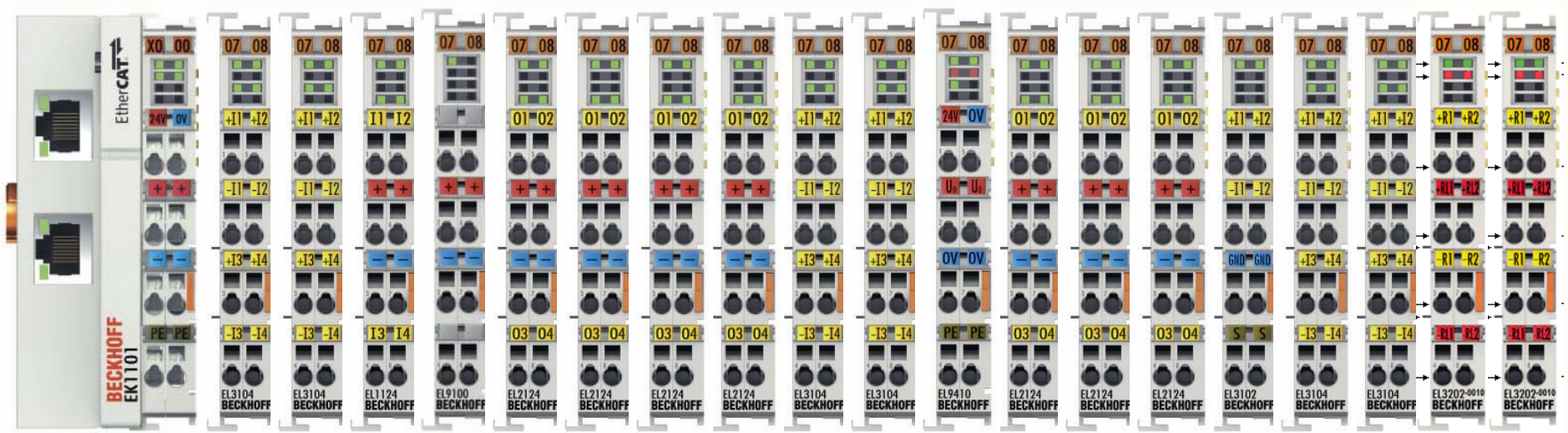
B20
EL3692
2-channel high precision resistance terminal

B21
EL3692
2-channel high precision resistance terminal

B22
EL9011
End cap

B23
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B24
5V/0.6A isolated DC-DC converter, Omron S82S-7305



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Ebus 24V — 24V
Power contacts 5V 5V 5V

DC_1 Laser DC PDs DC PDs Temperature DC_2 DC_3
concentrator 8 concentrator 7

Power budget:
EL3104: 0.130 A (4x)
EL4234: 0.265 A (0x)
EL1124: 0.090 A (1x)
EL2124: 0.130 A (4x)

1.130 A

Power budget:
EL3104: 0.130 A (2x)
EL3102: 0.170 A (1x)
EL3692: 0.220 A (2x)
EL1124: 0.090 A (0x)
EL2124: 0.130 A (3x)

1.260 A

| | | |
|---------------------------------------|--|-----------------------|
| Title | | |
| EtherCAT Squeezer 3: Left Rail | | |
| Size | Number | Revision |
| B | D1600509 | 4 |
| Date: | 2/12/2021 | Sheet 2 of 4 |
| File: | C:\Users\...\EtherCATSqueezerC2.SchDoc | Drawn By: Daniel Sigg |

B25
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B26
EK1100
Beckhoff EtherCAT coupler

B27
EL1124
4-channel digital input terminals, 5V

B28
EL1124
4-channel digital input terminals, 5V

B29
EL1124
4-channel digital input terminals, 5V

B30
EL2124
4-channel digital output terminals, 5V

B31
EL2124
4-channel digital output terminals, 5V

B32
EL2124
4-channel digital output terminals, 5V

B33
EL9410
Power supply terminals for E-bus, diagnostics

B34
EL1124
4-channel digital input terminals, 5V

B35
EL2124
4-channel digital output terminals, 5V

B36
EL2124
4-channel digital output terminals, 5V

B37
EL2124
4-channel digital output terminals, 5V

B38
EL3104
4-channel analog input terminals, differential, 16 bits

B39
EL3102
2-channel analog input terminals, differential, 16 bits

B40
EL4134
4-channel analog output terminals, differential, 16 bits

B41
EL4132
2-channel analog output terminals, differential, 16 bits

B42
EL9410
Power supply terminals for E-bus, diagnostics

B43
EL3104
4-channel analog input terminals, differential, 16 bits

B44
EL4134
4-channel analog output terminals, differential, 16 bits

B45
EL1124
4-channel digital input terminals, 5V

B46
EL2124
4-channel digital output terminals, 5V

B47
EL2124
4-channel digital output terminals, 5V

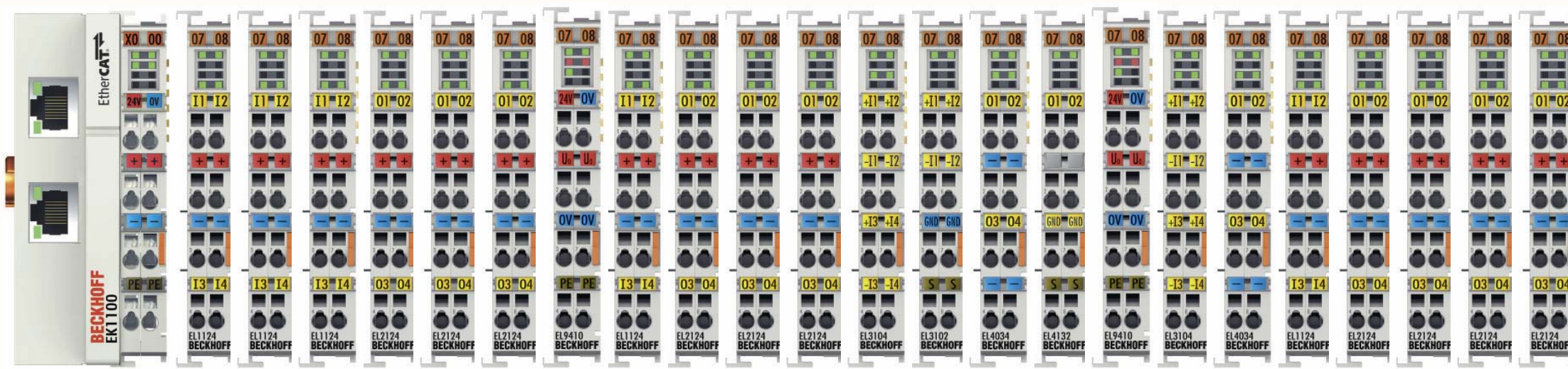
B48
EL2124
4-channel digital output terminals, 5V

B49
EL2124
4-channel digital output terminals, 5V

B50
EL9011
End cap

B51
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B52
5V/0.6A isolated DC-DC converter, Omron S82S-7305



Ebus 24V
Power contacts 5V

24V
5V

DC_4 Flipper/TTL IO

TTFSS

AM Mod. AOM Amp (Green)

DC_5
DC_6

Power budget:
EL1124: 0.090 A (3x)
EL2124: 0.130 A (3x)

0.660 A

Power budget:
EL3102: 0.170 A (1x)
EL3104: 0.130 A (1x)
EL4132: 0.210 A (1x)
EL4134: 0.265 A (1x)
EL1124: 0.090 A (1x)
EL2124: 0.130 A (3x)

1.255 A

Power budget:
EL3104: 0.130 A (1x)
EL4134: 0.265 A (1x)
EL1124: 0.090 A (1x)
EL2124: 0.130 A (4x)

1.005 A

| | | |
|--|---------------------------|----------------------|
| Title EtherCAT Squeezer 3: Middle Rail | | |
| Size B | Number D1600509 | Revision 4 |
| Date: 2/12/2021 | Sheet 3 of 4 | |
| File: C:\Users\...\EtherCATSqueezer3.SchDoc | Drawn By: Daniel Sigg | |

B53
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B54
EK1100
Beckhoff EtherCAT coupler

B55
EL3104
4-channel analog input terminals, differential, 16 bits

B56
EL4134
4-channel analog output terminals, differential, 16 bits

B57
EL1124
4-channel digital input terminals, 5V

B58
EL2124
4-channel digital output terminals, 5V

B59
EL2124
4-channel digital output terminals, 5V

B60
EL2124
4-channel digital output terminals, 5V

B61
EL2124
4-channel digital output terminals, 5V

B62
EL9410
Power supply terminals for E-bus, diagnostics

B63
EL2124
4-channel digital output terminals, 5V

B64
EL2124
4-channel digital output terminals, 5V

B65
EL2124
4-channel digital output terminals, 5V

B66
EL3102
2-channel analog input terminals, differential, 16 bits

B67
EL3104
4-channel analog input terminals, differential, 16 bits

B68
EL3104
4-channel analog input terminals, differential, 16 bits

B69
EL9410
Power supply terminals for E-bus, diagnostics

B71
EL1124
4-channel digital input terminals, 5V

B72
EL2124
4-channel digital output terminals, 5V

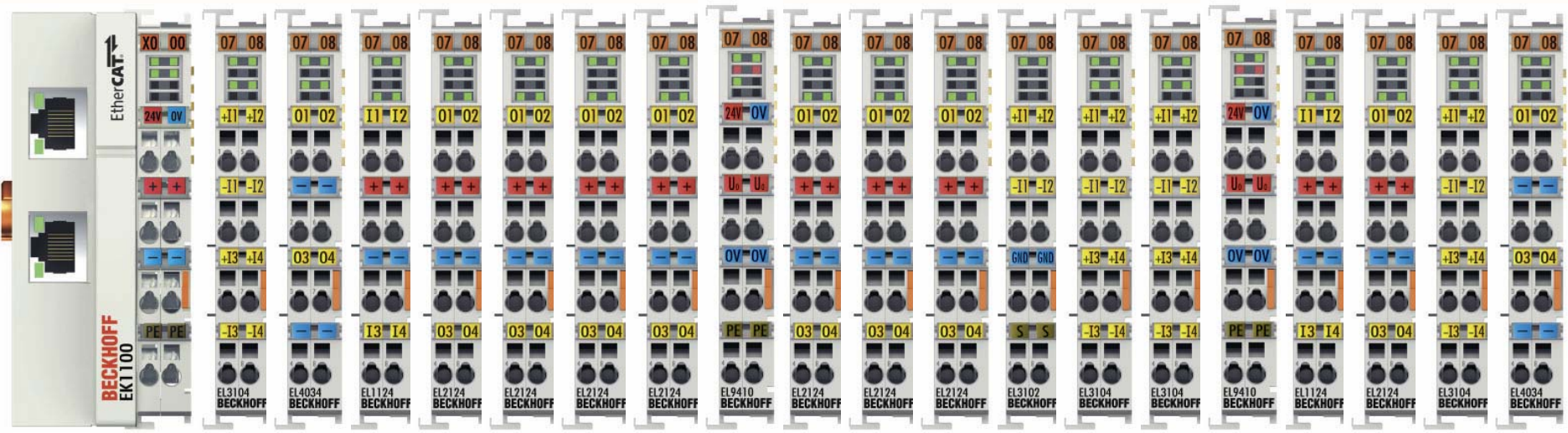
B73
EL3104
4-channel analog input terminals, differential, 16 bits

B74
EL4134
4-channel analog output terminals, differential, 16 bits

B75
EL9011
End cap

B70
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B76
5V/0.6A isolated DC-DC converter, Omron S82S-7305



0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

Ebus 24V
Power contacts 5V

24V
5V

24V
5V

DC_7 AM Mod. AOM Amp (IR)

DC PDs concentrator 9

Auxiliary concentrator 1

DC_8
DC_9

Power budget:
EL3104: 0.130 A (1x)
EL4134: 0.265 A (1x)
EL1124: 0.090 A (1x)
EL2124: 0.130 A (4x)

1.005 A

Power budget:
EL3104: 0.130 A (2x)
EL3102: 0.170 A (1x)
EL1124: 0.090 A (0x)
EL2124: 0.130 A (3x)

0.820 A

Power budget:
EL3104: 0.130 A (1x)
EL4134: 0.265 A (1x)
EL1124: 0.090 A (1x)
EL2124: 0.130 A (1x)

0.615 A

| | | |
|--|------------------------|-------------------|
| Title EtherCAT Squeezer 3: Right Rail | | |
| Size B | Number D1600509 | Revision 4 |
| Date: 2/12/2021 | Sheet 4 of 4 | |
| File: C:\Users\...\EtherCATSqueezerC4.SchDoc | Drawn By: Daniel Sigg | |