

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

IN

OUT

1A

2A

PN1 EtherCAT chassis LIGO D0902552-v3	PN5 Ethernet patch cable, 1' PN6 Ethernet patch cable, 1'	PN9 Ethernet patch cable, 1' PN10 Ethernet patch cable, 1' Newark 21M5658	PN13 Adapter panel LIGO D1100108-v1	PN16 Adapter panel LIGO D1100108-v1
PN2 Name Plate LIGO D1102434-v1				

**CAT5
Corner**

**CAT5
Corner**

Blank

Blank

TBLOCK

PN27 Terminal Block	PN33 Terminal Block	PN40 Terminal Block	PN46 Terminal Block
PN28 Terminal Block	PN34 Terminal Block	PN41 Terminal Block	PN47 Terminal Block
PN29 Terminal Block	PN35 Terminal Block	PN42 Terminal Block	PN48 Terminal Block
PN30 Terminal Block	PN36 Terminal Block	PN43 Terminal Block	PN49 Terminal Block
PN31 Terminal Block	PN37 Terminal Block	PN44 Terminal Block	PN50 Terminal Block
Digi-Key 277-1483-ND		Digi-Key 277-1483-ND	
	PN38 Jumper, 10pos		PN51 Jumper, 10pos
PN32 End Plate	PN39 Jumper, 10pos	PN45 End Plate	PN52 Jumper, 10pos
Digi-Key 277-1495-ND	Digi-Key 277-1494-ND	Digi-Key 277-1495-ND	Digi-Key 277-1494-ND

Slots

1 2 3 4 5 6 7 8 9

PN3 Adapter panel LIGO D1102436-v1-A	PN7 Adapter panel LIGO D1102436-v1-B	PN11 Adapter panel LIGO D1102436-v1-C	PN14 Adapter panel LIGO D1102436-v1-D	PN17 Adapter panel LIGO D1002963-v1	PN19 Adapter panel LIGO D0902587-v1-A	PN21 Adapter panel LIGO D0902587-v1-B	PN23 Adapter panel LIGO D1102437-v1-A	PN25 Adapter panel LIGO D1102437-v1-B
PN4 DB37M adapter LIGO D0902569-v1	PN8 DB37M adapter LIGO D0902569-v1	PN12 DB37M adapter LIGO D0902569-v1	PN15 DB37M adapter LIGO D0902569-v1	PN18 DB25M adapter LIGO D0902567-v1	PN20 DB25F adapter LIGO D0902568-v1	PN22 DB25F adapter LIGO D0902568-v1	PN24 DB37M adapter LIGO D0902569-v1	PN26 DB37M adapter LIGO D0902569-v1
E1 #6-32 1/4" flat	E3 #6-32 1/4" flat	E5 #6-32 1/4" flat	E7 #6-32 1/4" flat	E9 #6-32 1/4" flat	E11 #6-32 1/4" flat	E13 #6-32 1/4" flat	E15 #6-32 1/4" flat	E17 #6-32 1/4" flat
E2 #6-32 1/4" flat	E4 #6-32 1/4" flat	E6 #6-32 1/4" flat	E8 #6-32 1/4" flat	E10 #6-32 1/4" flat	E12 #6-32 1/4" flat	E14 #6-32 1/4" flat	E16 #6-32 1/4" flat	E18 #6-32 1/4" flat
McMaster-Carr 91099A205	McMaster-Carr 91099A205	McMaster-Carr 91099A205	McMaster-Carr 91099A205	McMaster-Carr 91099A205	McMaster-Carr 91099A205	McMaster-Carr 91099A205	McMaster-Carr 91099A205	McMaster-Carr 91099A205

Demod A MC/ALS Demod B CM Demod C POB/REFL Demod D AS VCO Delay A Delay B RF Amp A RF Amp B

Title EtherCAT Corner 3		
Size B	Number D1100681	Revision 1
Date: 1/6/2012	Sheet 1 of 4	
File: C:\Users\...\EtherCATCornerC1.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
EL3104
4-channel analog input terminals, differential, 16 bits



B6
EL1124
4-channel digital input terminals, 5V



B7
EL1124
4-channel digital input terminals, 5V



B8
EL1124
4-channel digital input terminals, 5V



B9
EL9190
Feed terminal, arbitrary voltage



B10
EL3104
4-channel analog input terminals, differential, 16 bits



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



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



B13
EL1124
4-channel digital input terminals, 5V



B14
EL1124
4-channel digital input terminals, 5V



B15
EL1124
4-channel digital input terminals, 5V



B16
EL9011
End cap



B17
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

Ebus 24V
Power contacts 5V

DC_1 RF Amp 1 RF Amp 2 DC_2

Power budget:
EL3104: 0.180 A (6x)
EL1124: 0.090 A (6x)

1.620 A

Title			EtherCAT Corner 3: Left Rail		
Size	Number			Revision	
B	D1100681			1	
Date:	1/6/2012	Sheet 2 of 4			
File:	C:\Users\...\EtherCATCornerC2.SchDoc	Drawn By: Daniel Sigg			

B18
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B19
EK1100
Beckhoff EtherCAT coupler

B20
EL3104
4-channel analog input terminals, differential, 16 bits

B21
EL3104
4-channel analog input terminals, differential, 16 bits

B22
EL4132
2-channel analog output terminals, differential, 16 bits

B23
EL1124
4-channel digital input terminals, 5V

B24
EL2124
4-channel digital output terminals, 5V

B25
EL9190
Feed terminal, arbitrary voltage

B26
EL2124
4-channel digital output terminals, 5V

B27
EL2124
4-channel digital output terminals, 5V

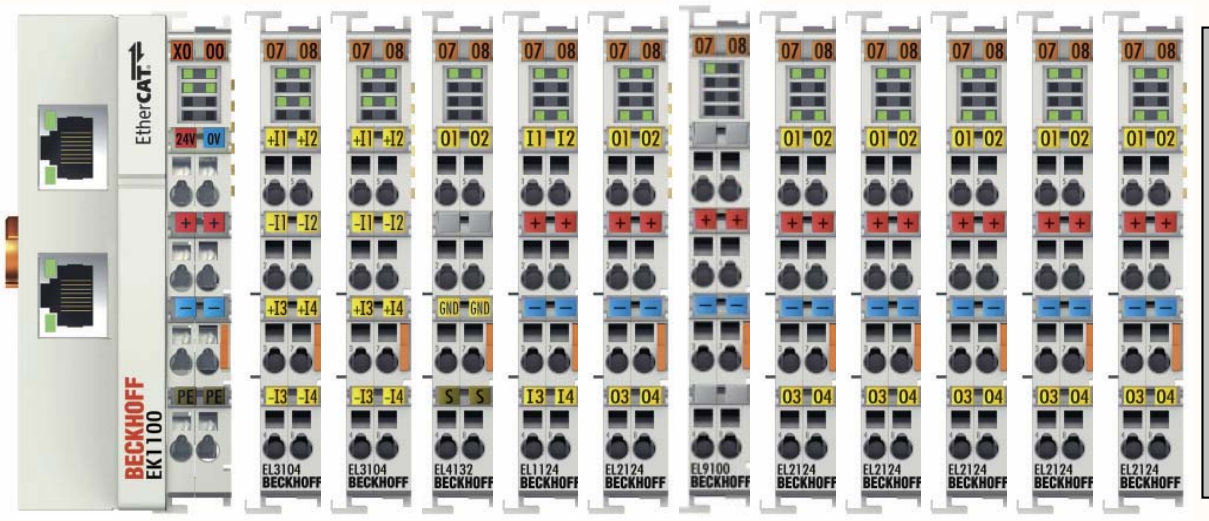
B28
EL2124
4-channel digital output terminals, 5V

B29
EL2124
4-channel digital output terminals, 5V

B30
EL2124
4-channel digital output terminals, 5V

B31
EL9011
End cap

B32
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

Ebus 24V —
Power contacts 5V 5V

DC_3 Low Noise VCO Delay line phase shifter A/B DC_4

Power budget:
 EL3104: 0.180 A (2x)
 EL4132: 0.210 A (1x)
 EL1124: 0.090 A (2x)
 EL2124: 0.130 A (5x)

 1.400 A

Title EtherCAT Corner 3: Middle Rail		
Size B	Number D1100681	Revision 1
Date:	1/6/2012	Sheet 3 of 4
File:	C:\Users\...\EtherCATCorner3.SchDoc	Drawn By: Daniel Sigg

A

B

C

D

A

B

C

D

B33
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B34
EK1100
Beckhoff EtherCAT coupler

B35
EL3104
4-channel analog input terminals, differential, 16 bits

B36
EL3104
4-channel analog input terminals, differential, 16 bits

B37
EL1124
4-channel digital input terminals, 5V

B38
EL9190
Feed terminal, arbitrary voltage

B39
EL3104
4-channel analog input terminals, differential, 16 bits

B40
EL3104
4-channel analog input terminals, differential, 16 bits

B41
EL3104
4-channel analog input terminals, differential, 16 bits

B42
EL3104
4-channel analog input terminals, differential, 16 bits

B43
EL1124
4-channel digital input terminals, 5V

B44
EL9410
Power supply terminals for E-bus

B45
EL3104
4-channel analog input terminals, differential, 16 bits

B46
EL3104
4-channel analog input terminals, differential, 16 bits

B47
EL3104
4-channel analog input terminals, differential, 16 bits

B48
EL3104
4-channel analog input terminals, differential, 16 bits

B49
EL9190
Feed terminal, arbitrary voltage

B50
EL3104
4-channel analog input terminals, differential, 16 bits

B51
EL3104
4-channel analog input terminals, differential, 16 bits

B52
EL3104
4-channel analog input terminals, differential, 16 bits

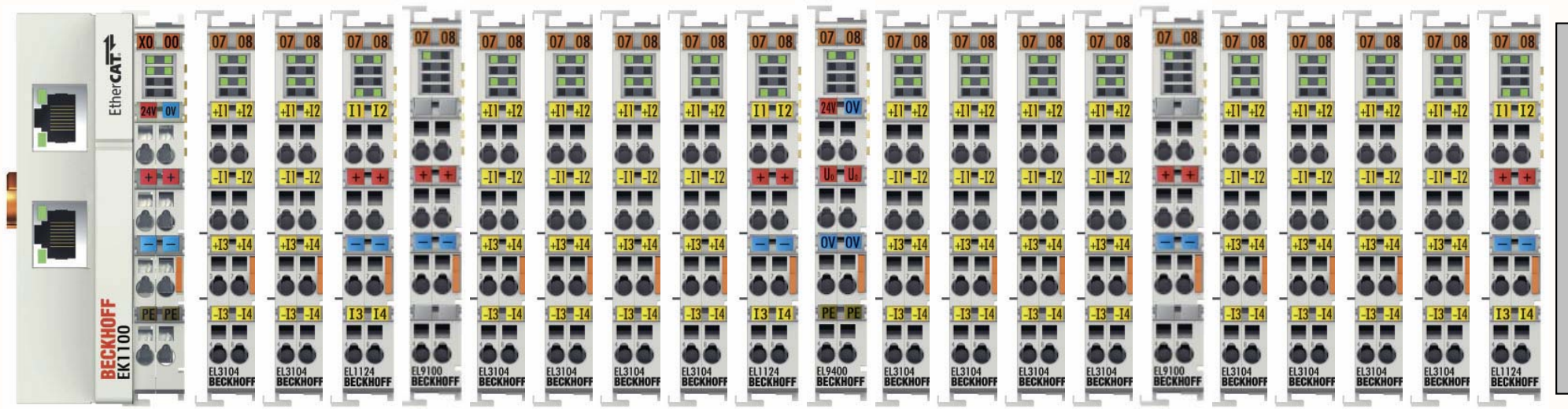
B53
EL3104
4-channel analog input terminals, differential, 16 bits

B54
EL1124
4-channel digital input terminals, 5V

B55
EL9011
End cap

B56
5V/0.6A isolated DC-DC converter, Omron S82S-7305

B57
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

Ebus 24V
Power contacts 5V

—
5V

24V
—
5V

Demod B

DC_5 Demod A

Demod C Demod D

DC_6 DC_7

Power budget:
EL3104: 0.180 A (6x)
EL1124: 0.090 A (2x)

1.260 A

Power budget:
EL3104: 0.180 A (8x)
EL1124: 0.090 A (1x)

1.530 A

Title EtherCAT Corner 3: Right Rail		
Size B	Number D1100681	Revision 1
Date: 1/6/2012	Sheet 4 of 4	
File: C:\Users\...\EtherCATCornerC4.SchDoc	Drawn By: Daniel Sigg	