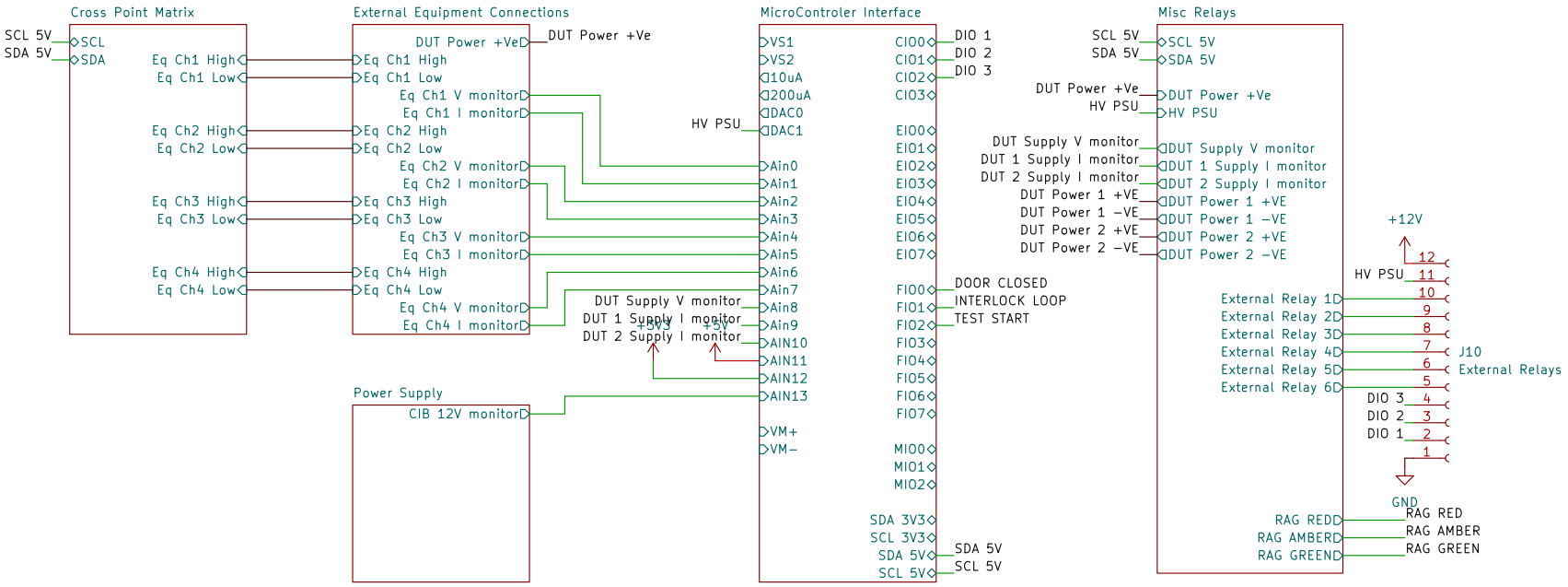
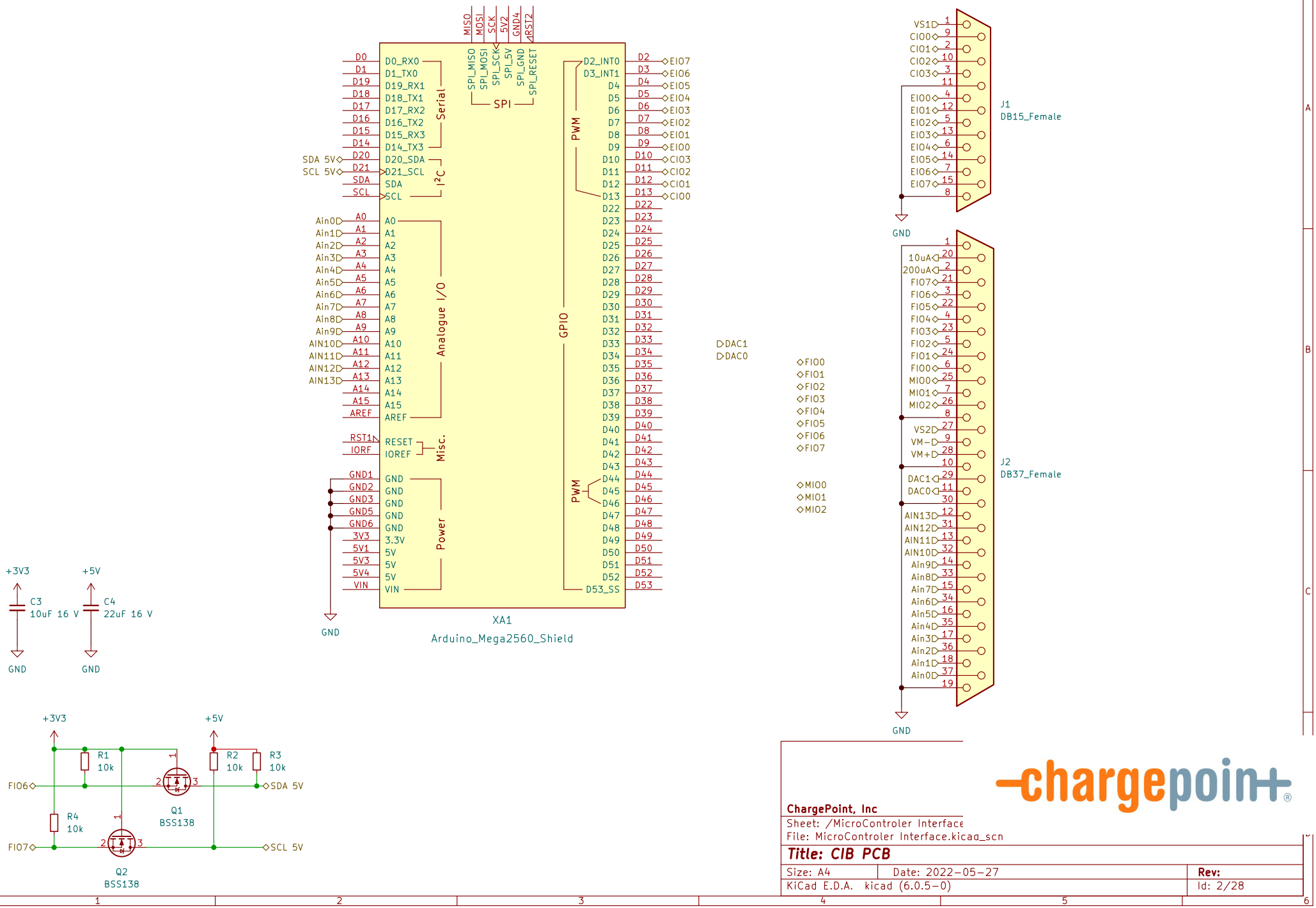


ChargePoint, Inc	
Sheet: /	
File: CIB_Main_PCB.kicad_sch	
Title: CIB PCB	
Size: A4	Date: 2022-05-27
KiCad E.D.A. kicad (6.0.5-0)	Rev: Id: 1/28



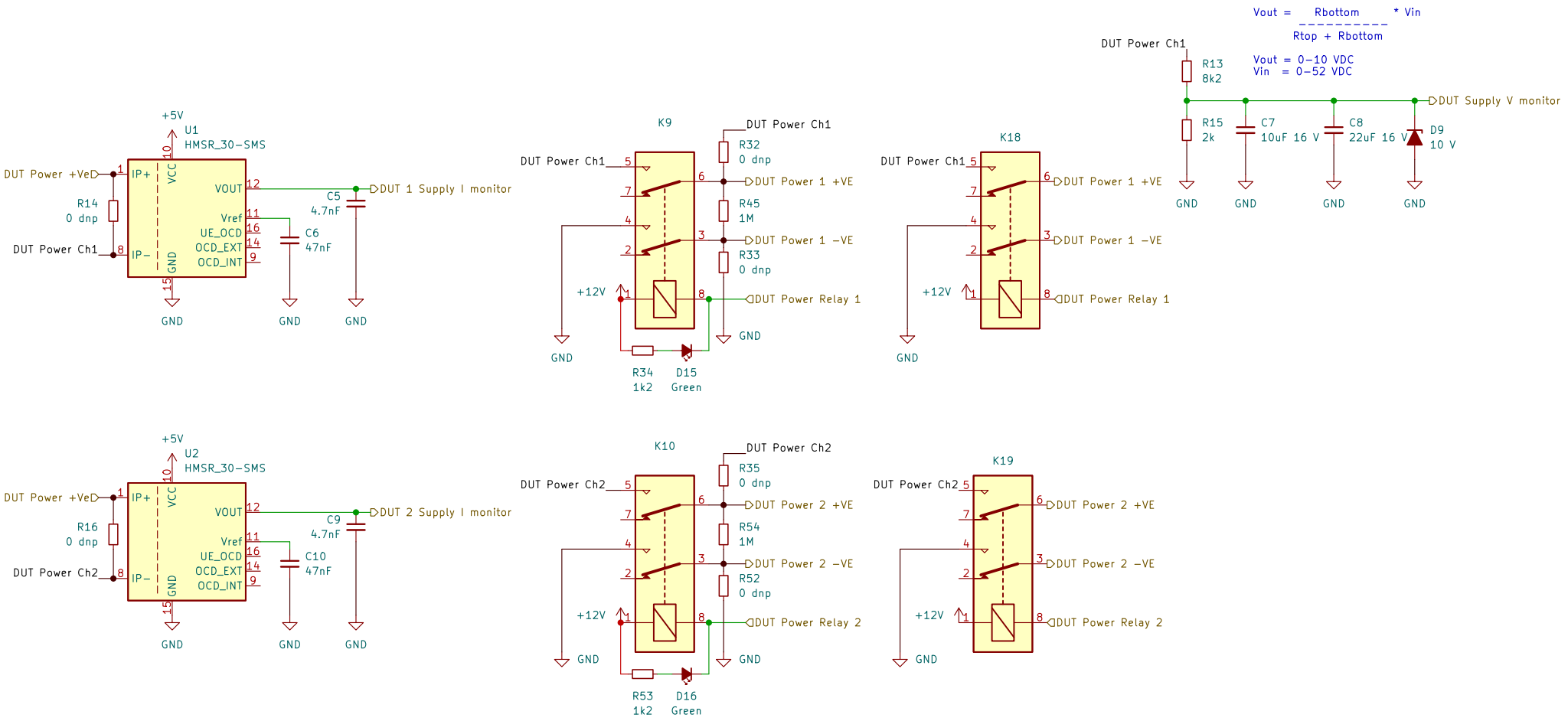
ChargePoint, Inc

Sheet: /MicroControler Interface

File: MicroControler Interface.kicad_scn

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 2/28



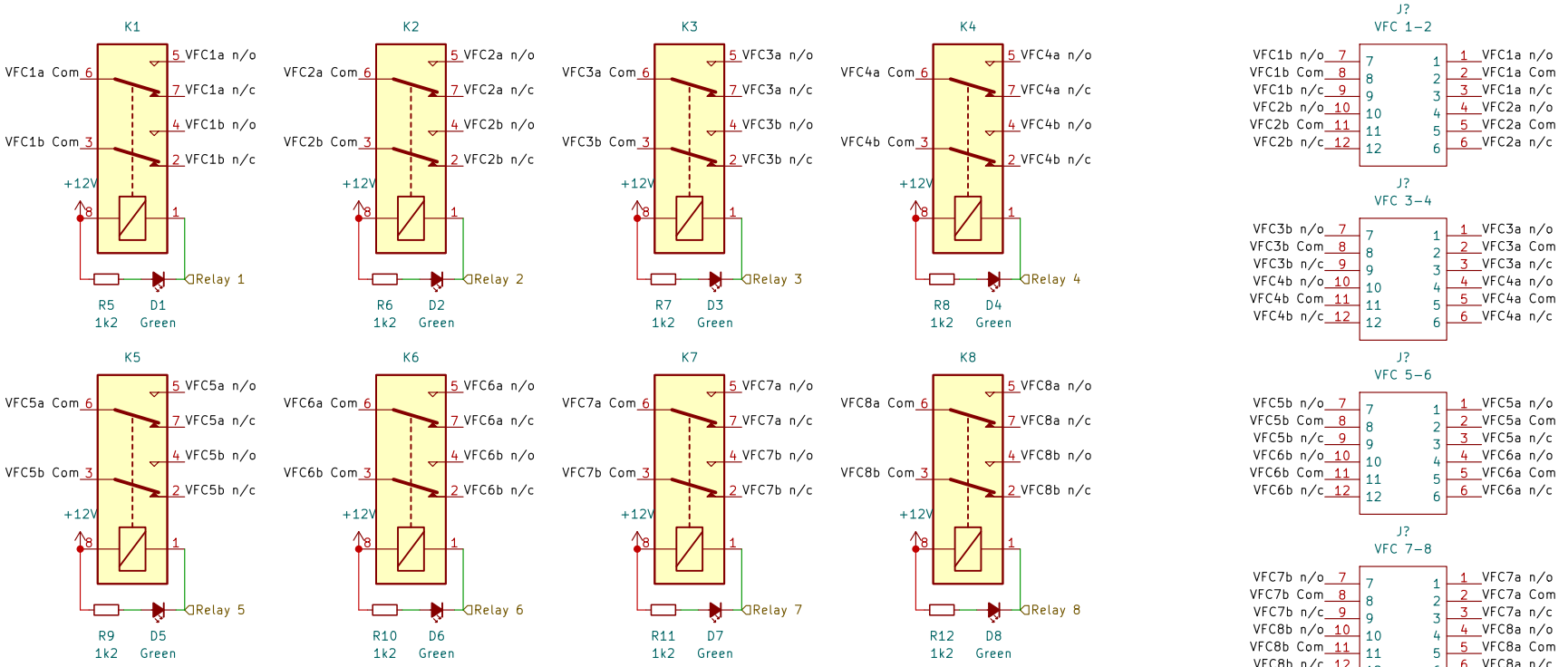
These relays are capable of switching upto 30 A
Finder Realys, Inc. PN# 66.22.9.012.0000
Digikey PN# 2066-66.22.9.012.0000-ND
Relay 30 A DPDT (2 Form C) 12VDC Coil

ChargePoint, Inc

Sheet: /Misc Relays/DUT Power
File: DUT Power.kicad_sch

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 3/28

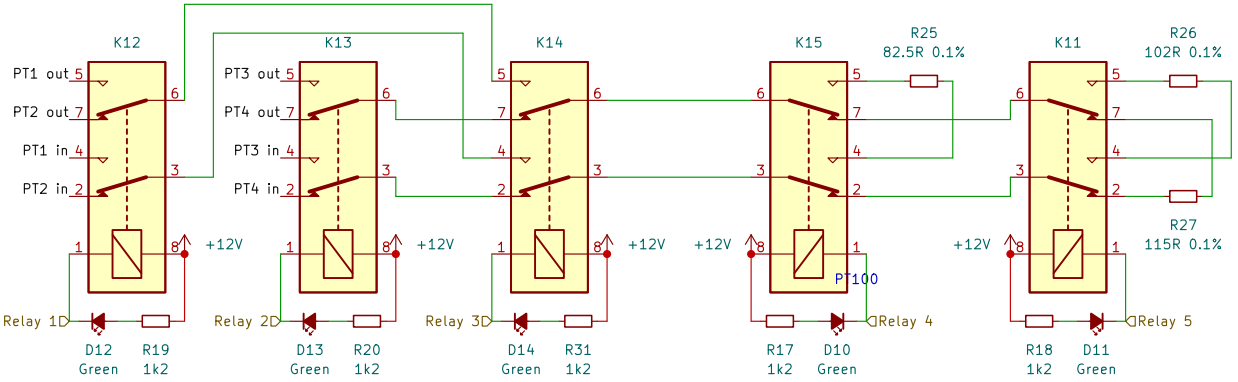


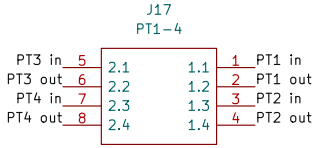
chargepoint®

Sheet: /Misc Relays/Volt Free (
File: Volt Free Contacts.kicad_scn

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.5–0)		Id: 4/28





https://chargepoint.atlassian.net/wiki/spaces/EN/pages/2363396879/FDC+FCT+PVT+-+Functional+Test+Specification#RTD-Temperature-Sense-Circuits

https://chargepoint.atlassian.net/wiki/spaces/EN/pages/2707457600/FDC+FCT+PVT+-+Custom+Circuits+RTD

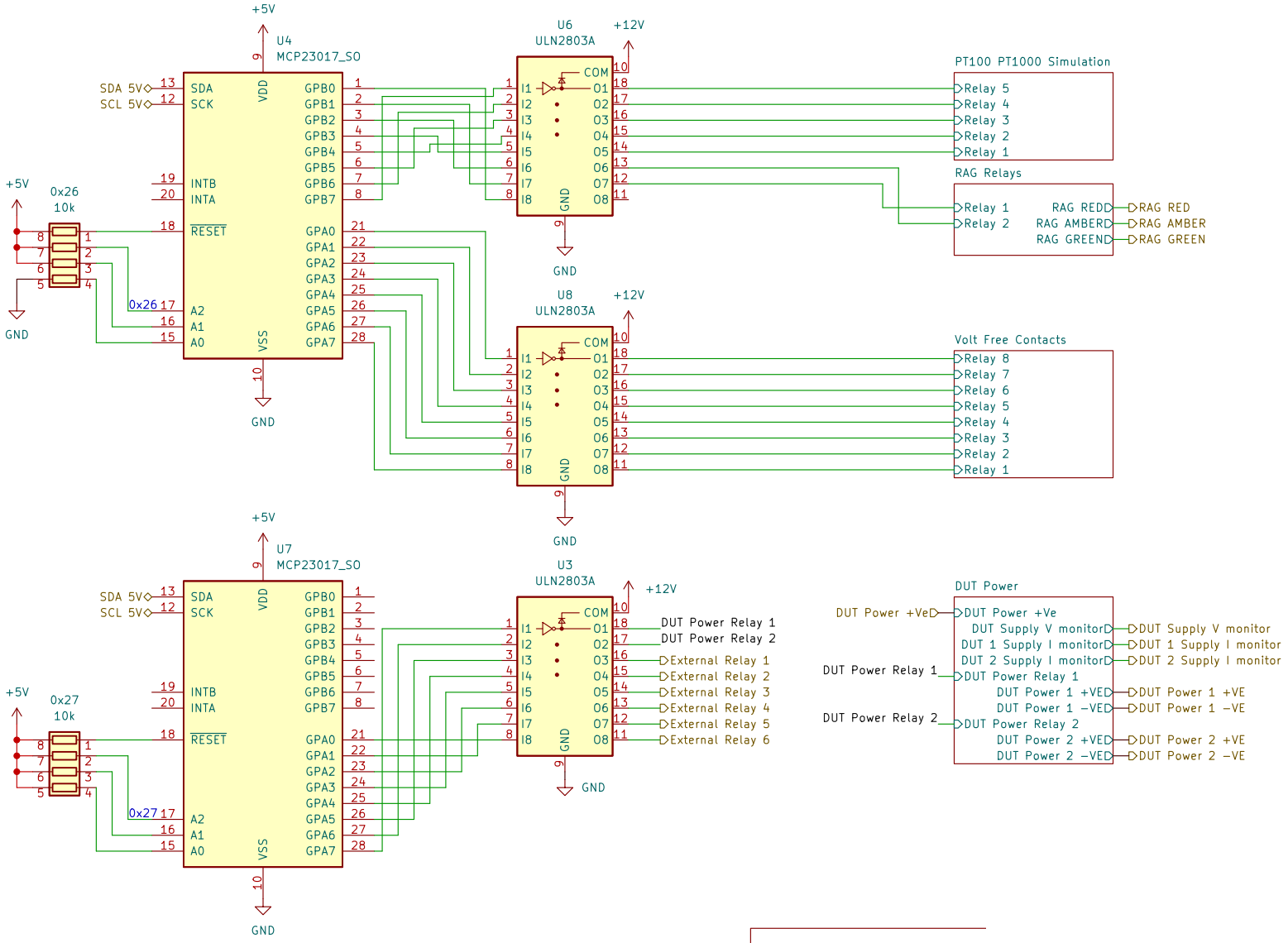
ChargePoint, Inc

Sheet: /Misc Relays/PT100 PT1

File: PT100 PT1000 Simulation.kicad_scn

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 7/28



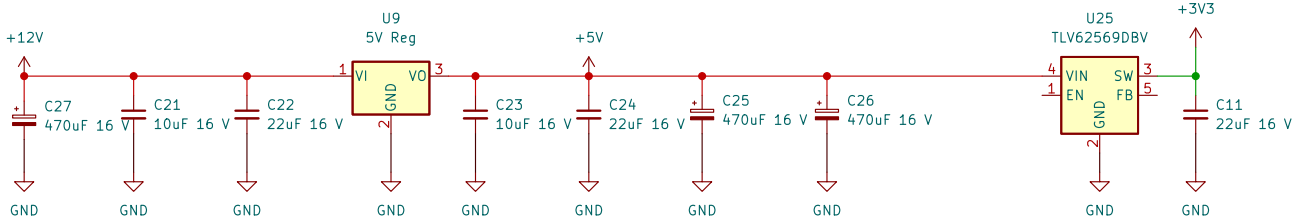
ChargePoint, Inc

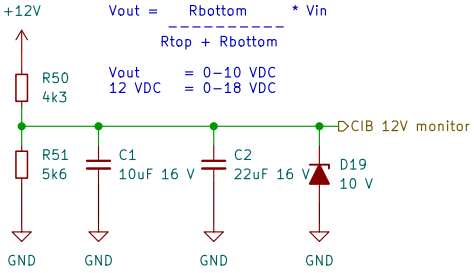
Sheet: /Misc Relays/

File: misc relays.kicad_sch

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 11/28



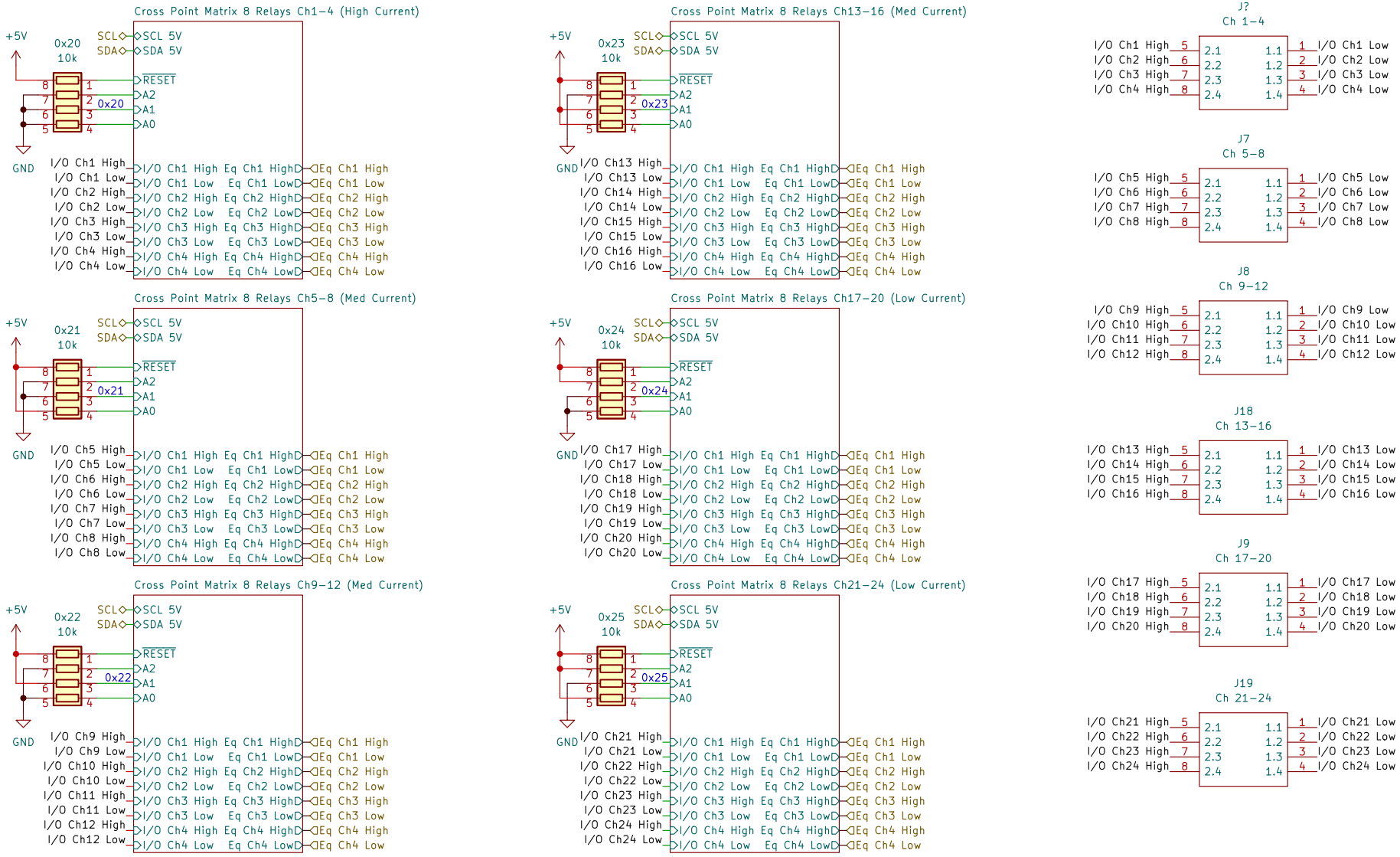


ChargePoint, Inc

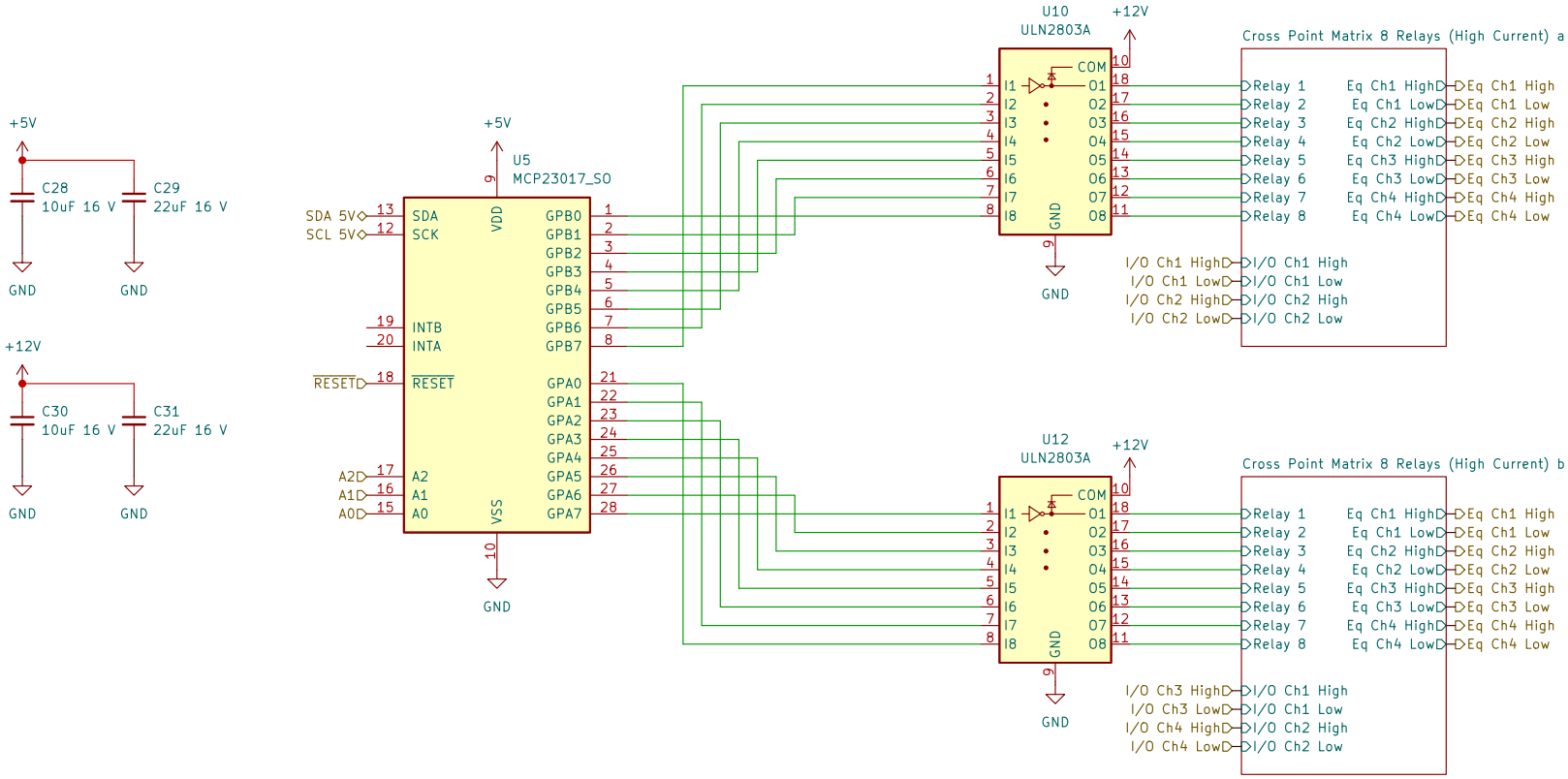
Sheet: /Power Supply/
File: CIB PSU.kicad_sch

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 12/28



ChargePoint, Inc	
Sheet: /Cross Point Matrix/	
File: Cross Point Matrix.kicad_scn	
Title: CIB PCB	
Size: A4	Date: 2022-05-27
KiCad E.D.A. kicad (6.0.5-0)	Rev: Id: 14/28



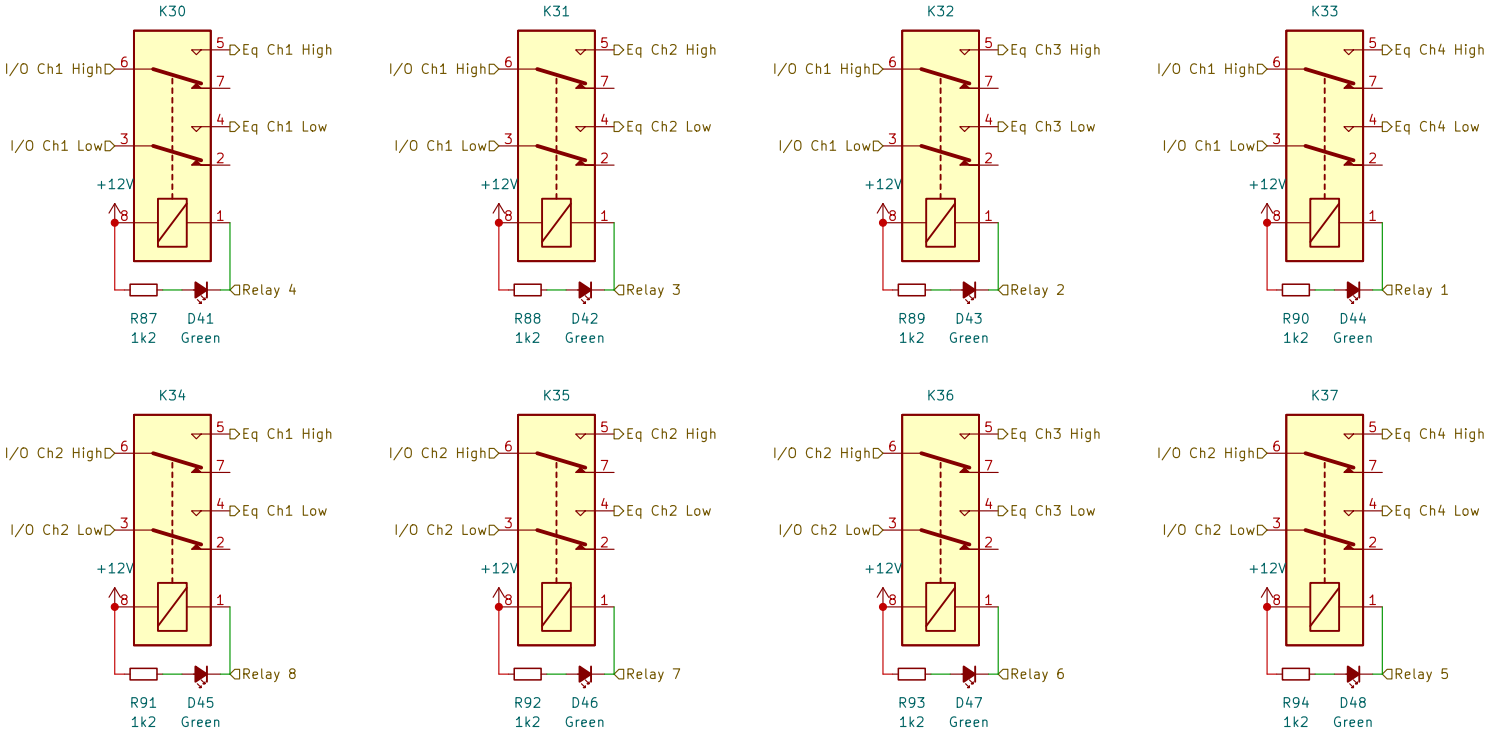
These relays are capable of switching upto 16 A
Picker Components PN# PC375-2C-12S4-X
Digikey PN# 2634-PC375-2C-12S4-X-ND
Relay 16 A DPDT (2 Form C) 12 VDC Coil

ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matix Ch1-4.kicad_scn

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 15/28



These relays are capable of switching upto 1 A
Omron PN# G6K-2P DC12
Digikey PN# Z117-ND
Relay 1A DPDT (2 Form C) 12 VDC coil

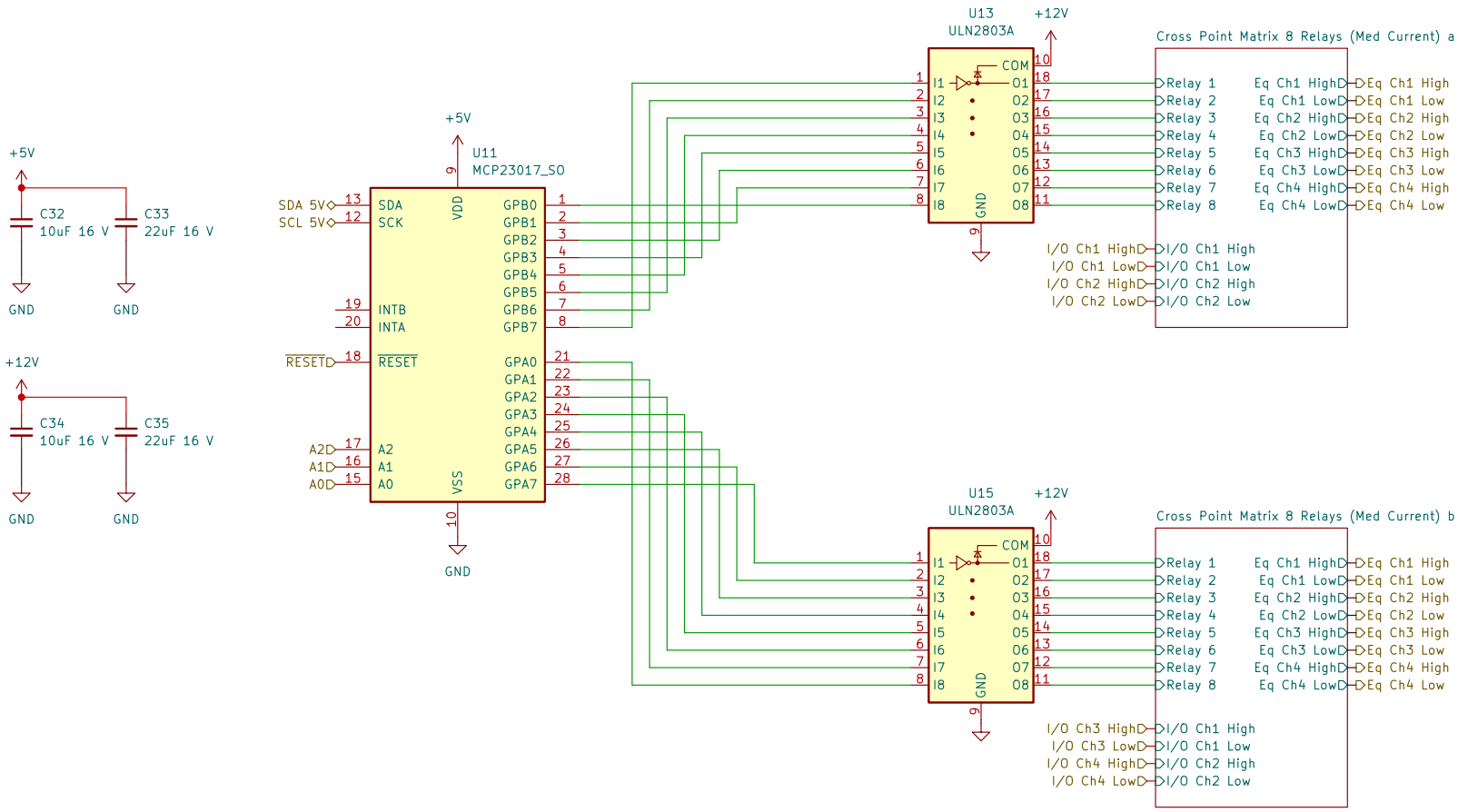
ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (Low Current).kicad_sch

trix 8

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 16/28



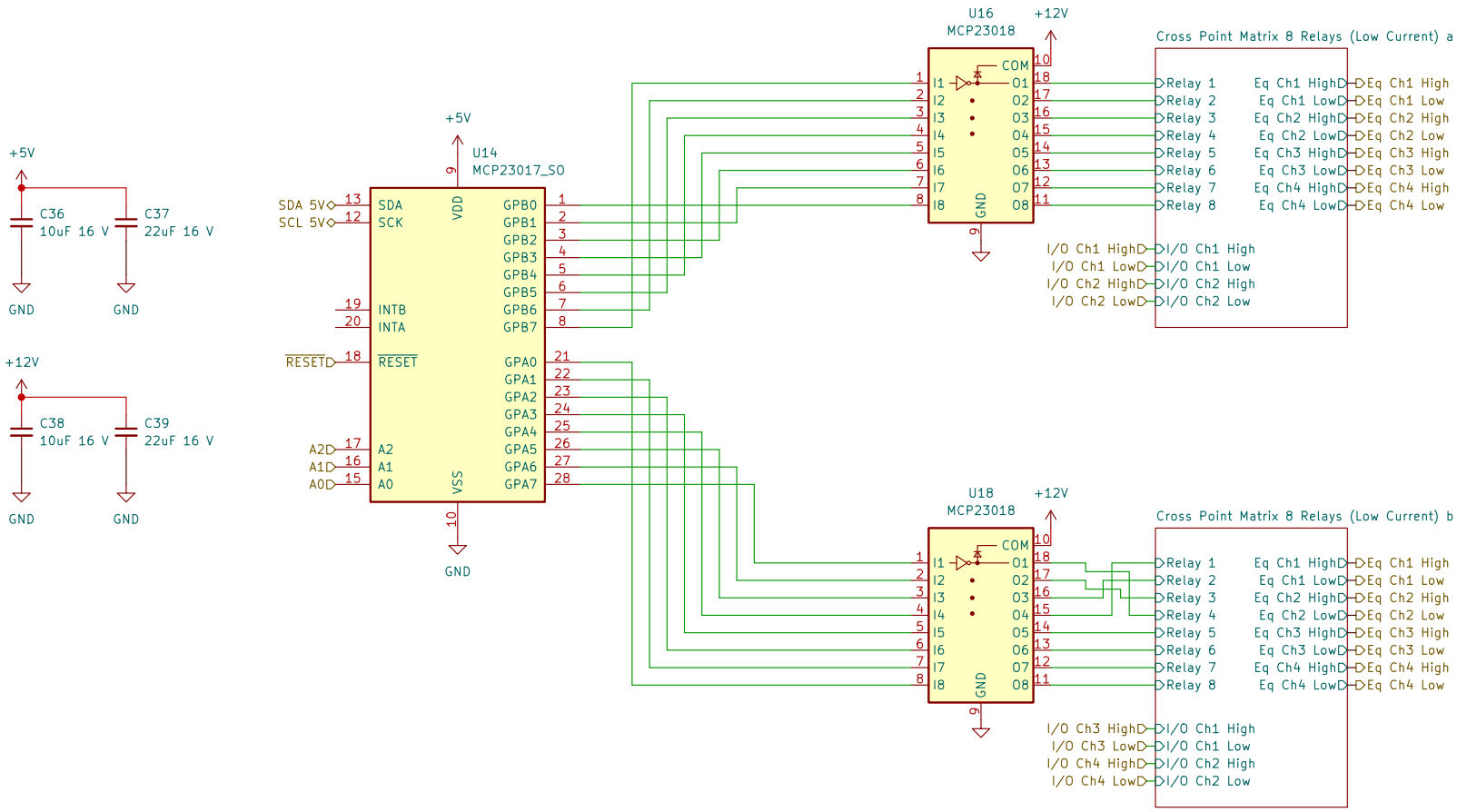
These relays are capable of switching upto 8 A
Omron PN# G2RL24CFDC12
Digi-Key PN# Z3088-ND
Relay 8 A DPDT (2 Form C) 12 VDC Coil

ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matix Ch5-16.kicad_scn

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 17/28



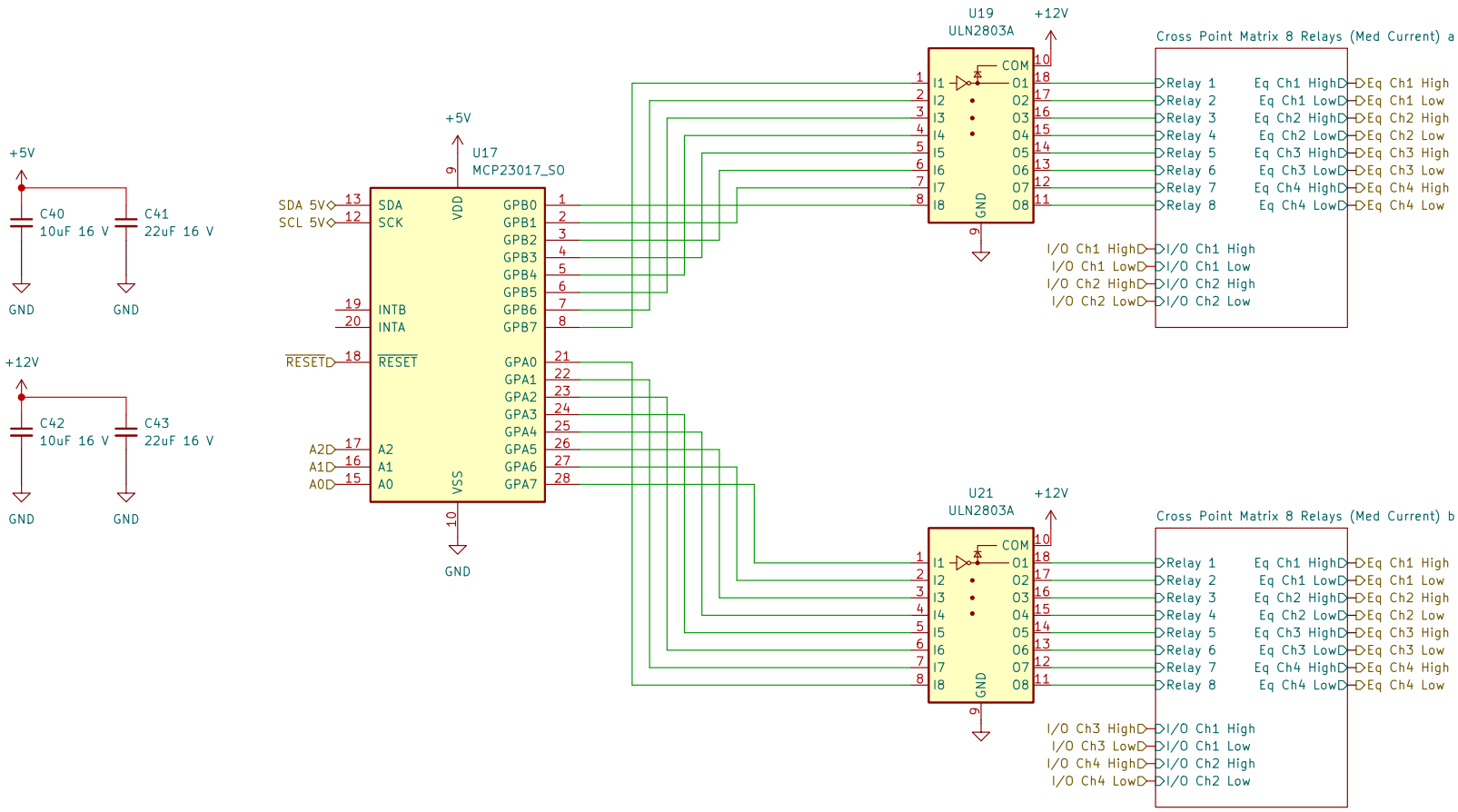
These relays are capable of switching upto 1 A
Omron PN# G6K-2P DC12
Digikey PN# Z117-ND
Relay 1A DPDT (2 Form C) 12 VDC coil

ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matix Ch17-24.kicad_scn

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 18/28



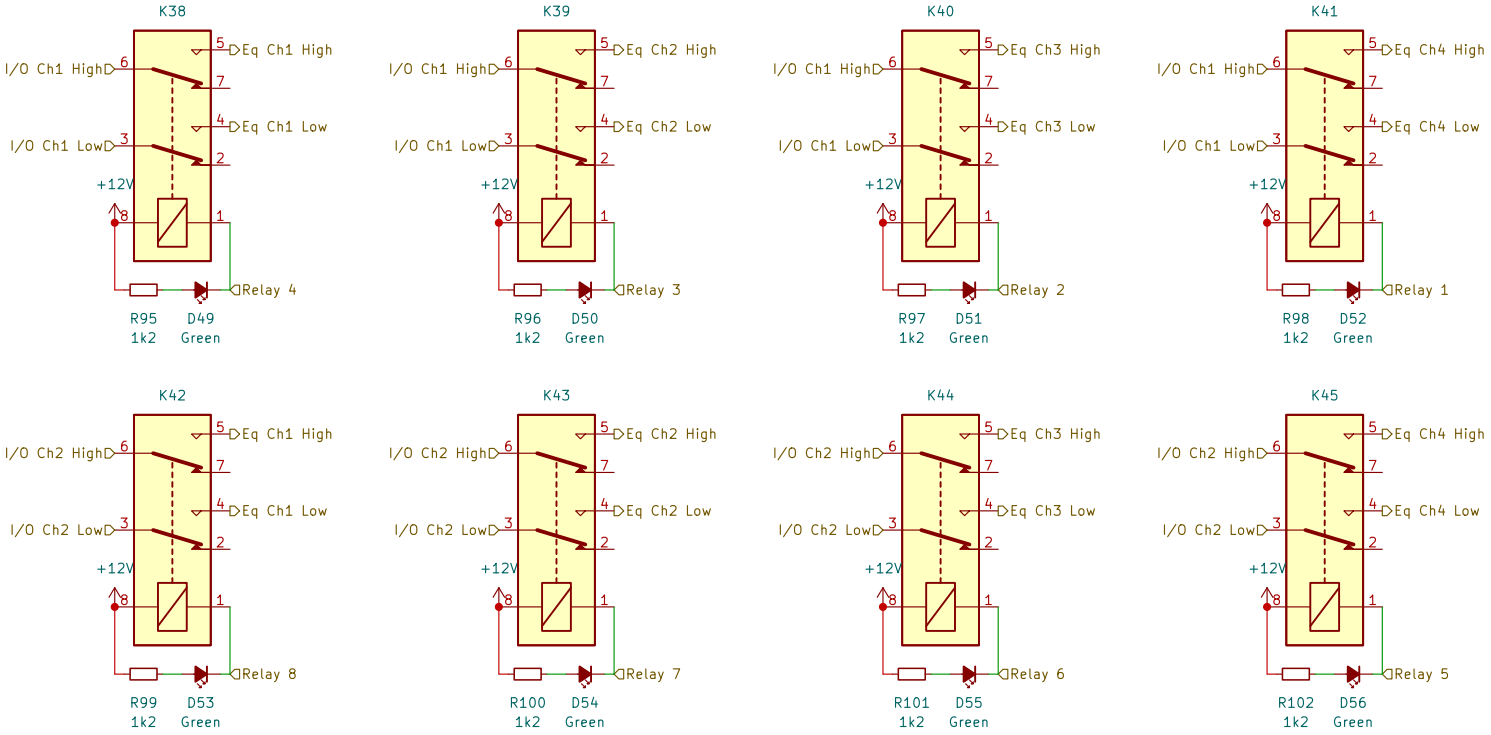
These relays are capable of switching upto 8 A
Omron PN# G2RL24CFDC12
Digi-Key PN# Z3088-ND
Relay 8 A DPDT (2 Form C) 12 VDC Coil

ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matix Ch5-16.kicad_scn

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 19/28



These relays are capable of switching upto 1 A
Omron PN# G6K-2P DC12
Digikey PN# Z117-ND
Relay 1A DPDT (2 Form C) 12 VDC coil

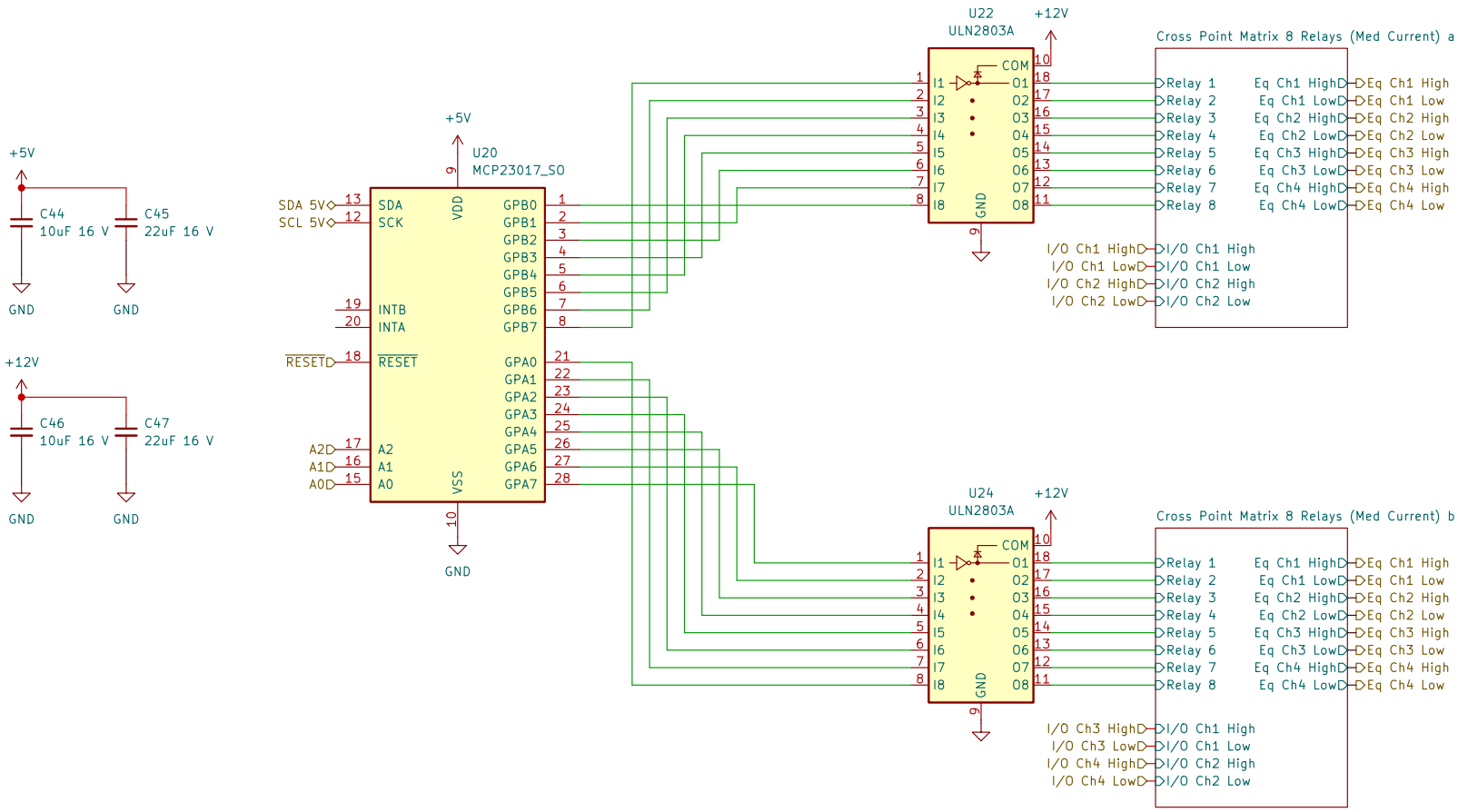
ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (Low Current).kicad_scn

trix 8

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 20/28



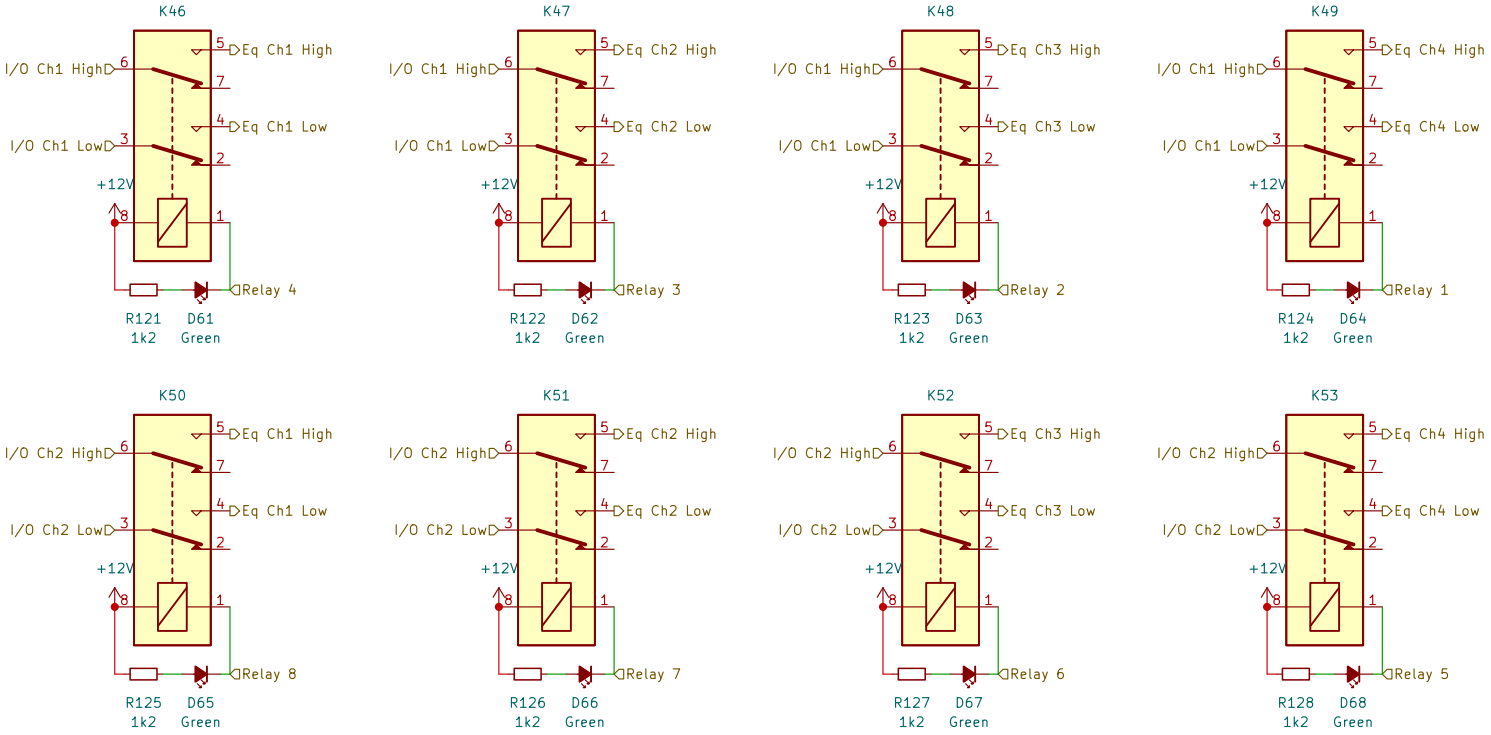
These relays are capable of switching upto 8 A
Omron PN# G2RL24CFDC12
Digi-Key PN# Z3088-ND
Relay 8 A DPDT (2 Form C) 12 VDC Coil

ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matix Ch5-16.kicad_scn

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 22/28



These relays are capable of switching upto 1 A
Omron PN# G6K-2P DC12
Digikey PN# Z117-ND
Relay 1A DPDT (2 Form C) 12 VDC coil

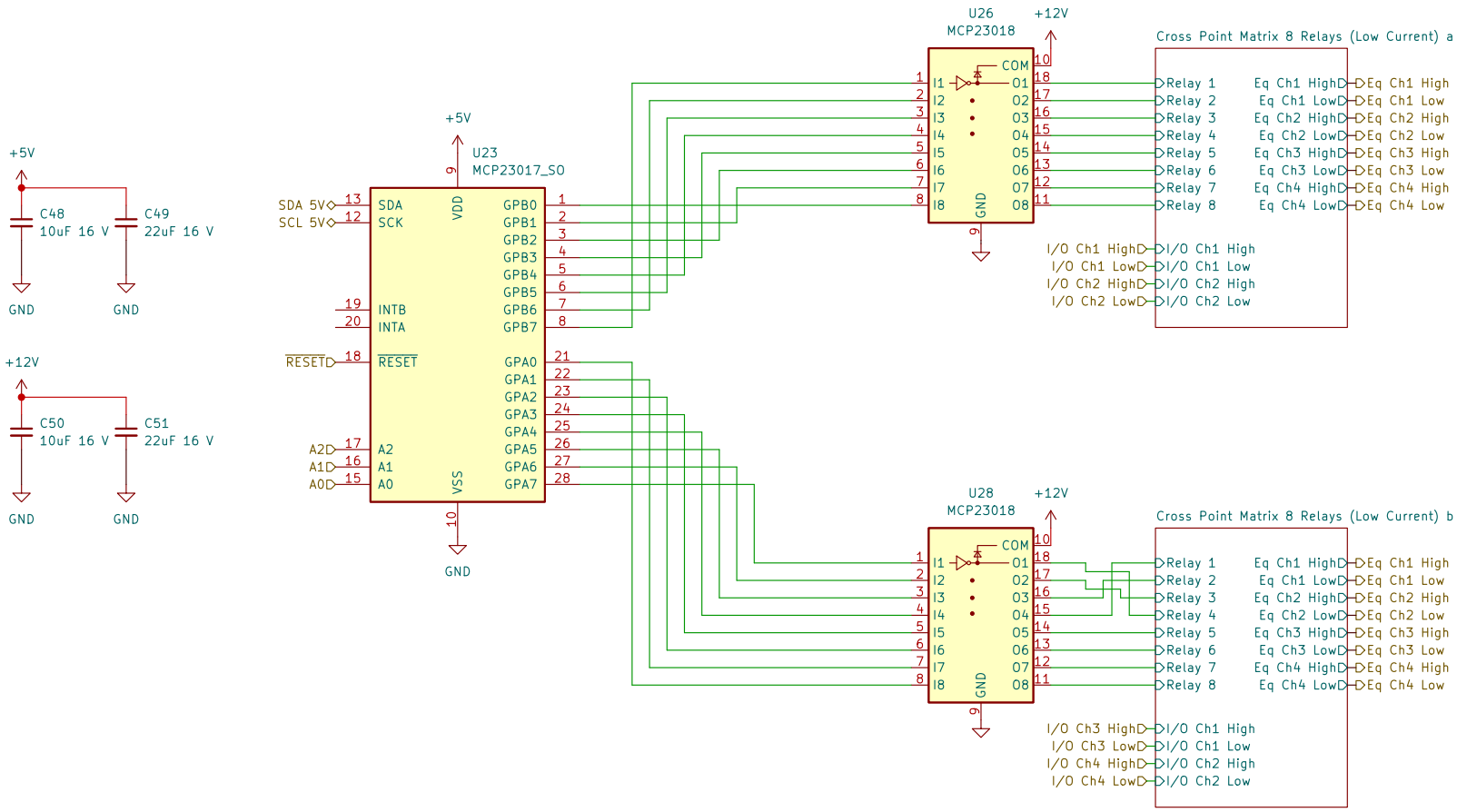
ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (Low Current).kicad_sch

trix 8

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 24/28



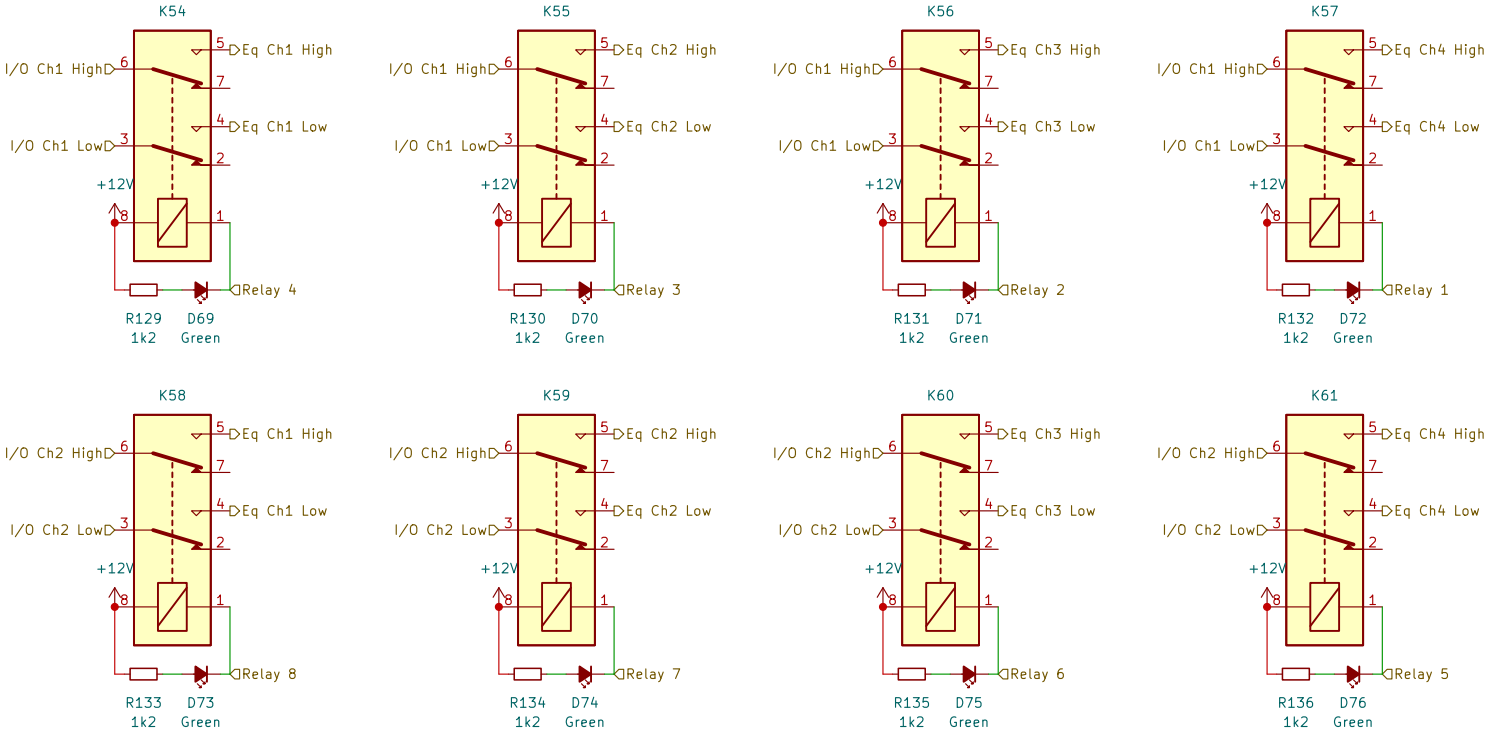
These relays are capable of switching upto 1 A
Omron PN# G6K-2P DC12
Digikey PN# Z117-ND
Relay 1A DPDT (2 Form C) 12 VDC coil

ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matix Ch17-24.kicad_scn

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 25/28



These relays are capable of switching upto 1 A
Omron PN# G6K-2P DC12
Digikey PN# Z117-ND
Relay 1A DPDT (2 Form C) 12 VDC coil

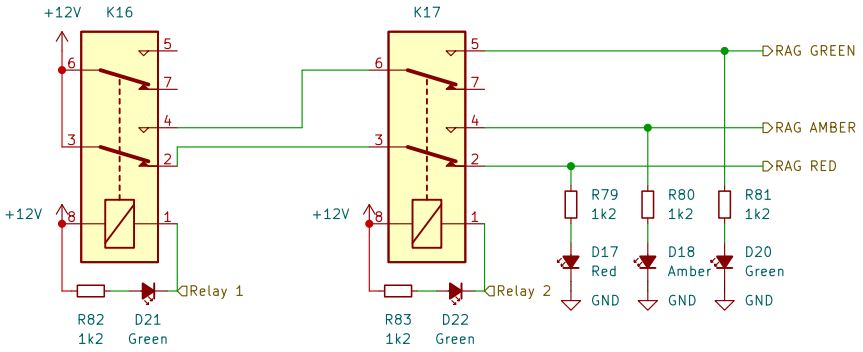
ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (Low Current).kicad_sch

trix 8

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 26/28



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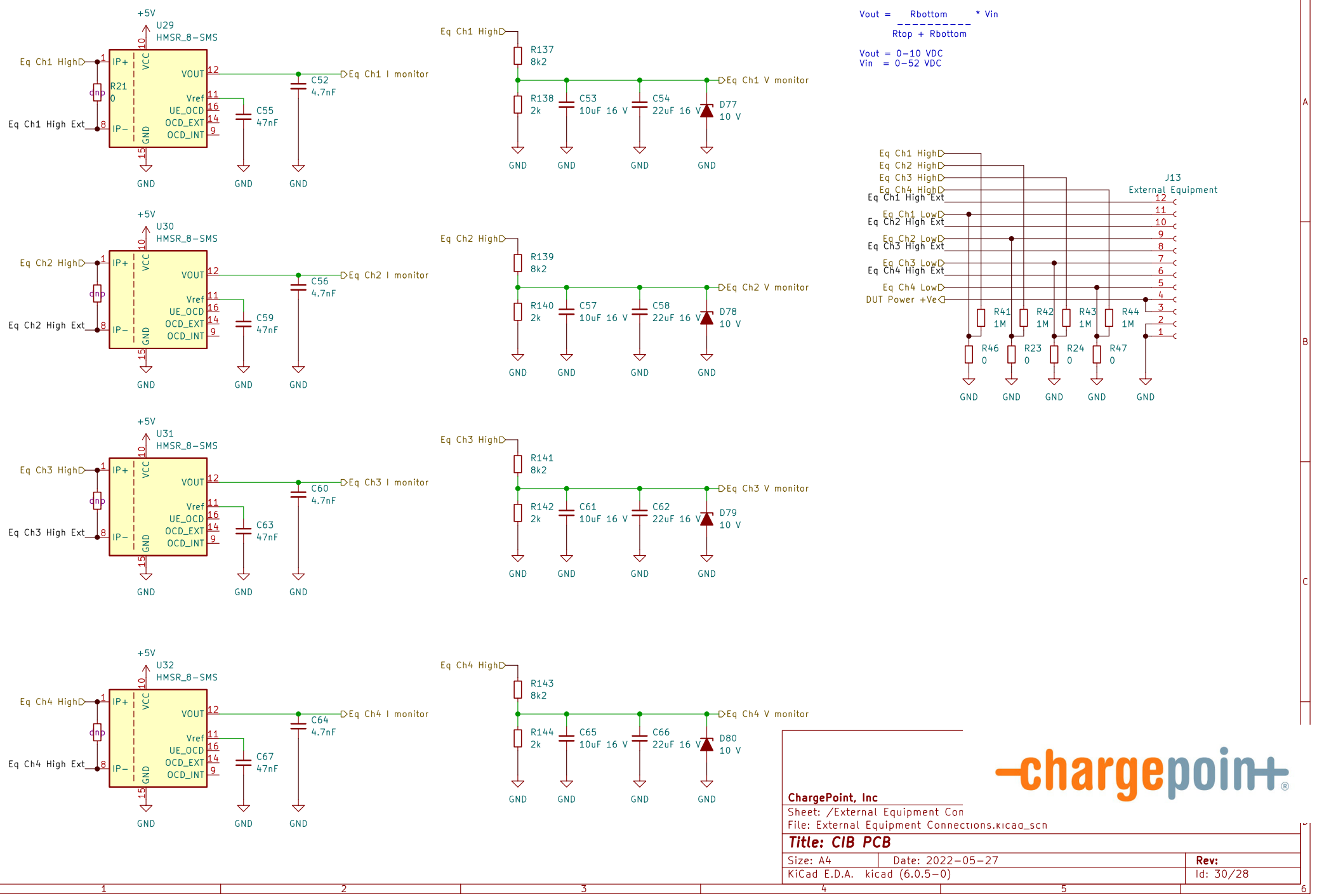
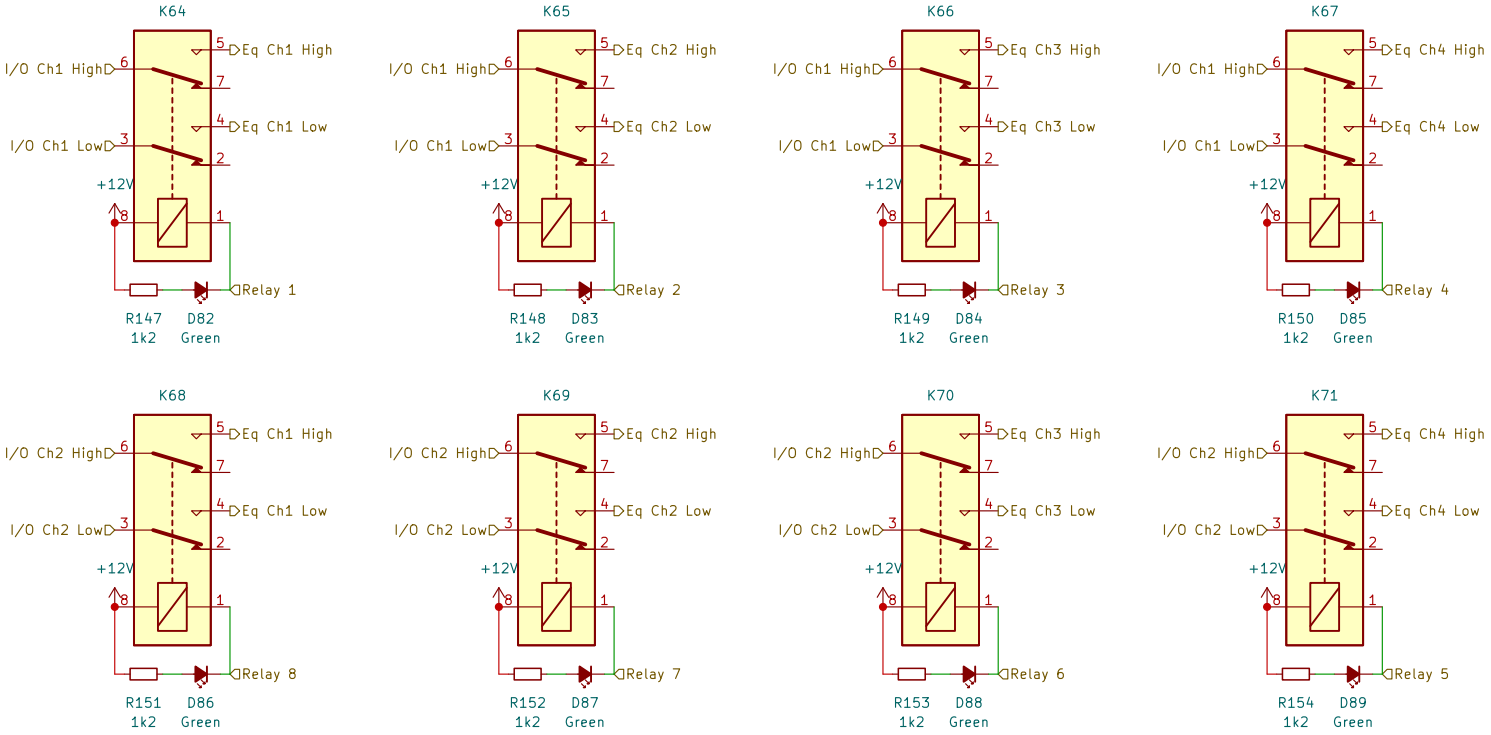
Sheet: /Misc Relays/RAG Relays/
File: RAG.kicad_sch

Title:

Size: A4	Date:	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: 28/28


+5V
U29
HMSR_8-SMS
Eq Ch1 High
IP+
R21
0
dnp
IP-
Eq Ch1 High Ext
VCC
VOUT
Vref
UE_OCD
OCD_EXT
OCD_INT
GND
C52
4.7nF
C55
47nF
Eq Ch1 I monitor
R137
8k2
R138
2k
C53
10uF 16 V
C54
22uF 16 V
D77
10 V
Eq Ch1 V monitor
Vout = Rbottom / (Rtop + Rbottom) * Vin
Vout = 0-10 VDC
Vin = 0-52 VDC
U30
HMSR_8-SMS
Eq Ch2 High
Eq Ch2 High Ext
C56
4.7nF
C59
47nF
Eq Ch2 I monitor
R139
8k2
R140
2k
C57
10uF 16 V
C58
22uF 16 V
D78
10 V
Eq Ch2 V monitor
U31
HMSR_8-SMS
Eq Ch3 High
Eq Ch3 High Ext
C60
4.7nF
C63
47nF
Eq Ch3 I monitor
R141
8k2
R142
2k
C61
10uF 16 V
C62
22uF 16 V
D79
10 V
Eq Ch3 V monitor
U32
HMSR_8-SMS
Eq Ch4 High
Eq Ch4 High Ext
C64
4.7nF
C67
47nF
Eq Ch4 I monitor
R143
8k2
R144
2k
C65
10uF 16 V
C66
22uF 16 V
D80
10 V
Eq Ch4 V monitor
J13
External Equipment
Eq Ch1 High
Eq Ch2 High
Eq Ch3 High
Eq Ch4 High
Eq Ch1 High Ext
Eq Ch1 Low
Eq Ch2 High Ext
Eq Ch2 Low
Eq Ch3 High Ext
Eq Ch3 Low
Eq Ch4 High Ext
Eq Ch4 Low
DUT Power +Ve
R41 1M
R42 1M
R43 1M
R44 1M
R46 0
R23 0
R24 0
R47 0
ChargePoint, Inc
Sheet: /External Equipment Con
File: External Equipment Connections.kicad_scn
Title: CIB PCB
Size: A4
Date: 2022-05-27
Rev:
KiCad E.D.A. kicad (6.0.5-0)
Id: 30/28



These relays are capable of switching upto 16 A
Picker Components PN# PC375-2C-12S4-X
Digikey PN# 2634-PC375-2C-12S4-X-ND
Relay 16 A DPDT (2 Form C) 12 VDC Coil

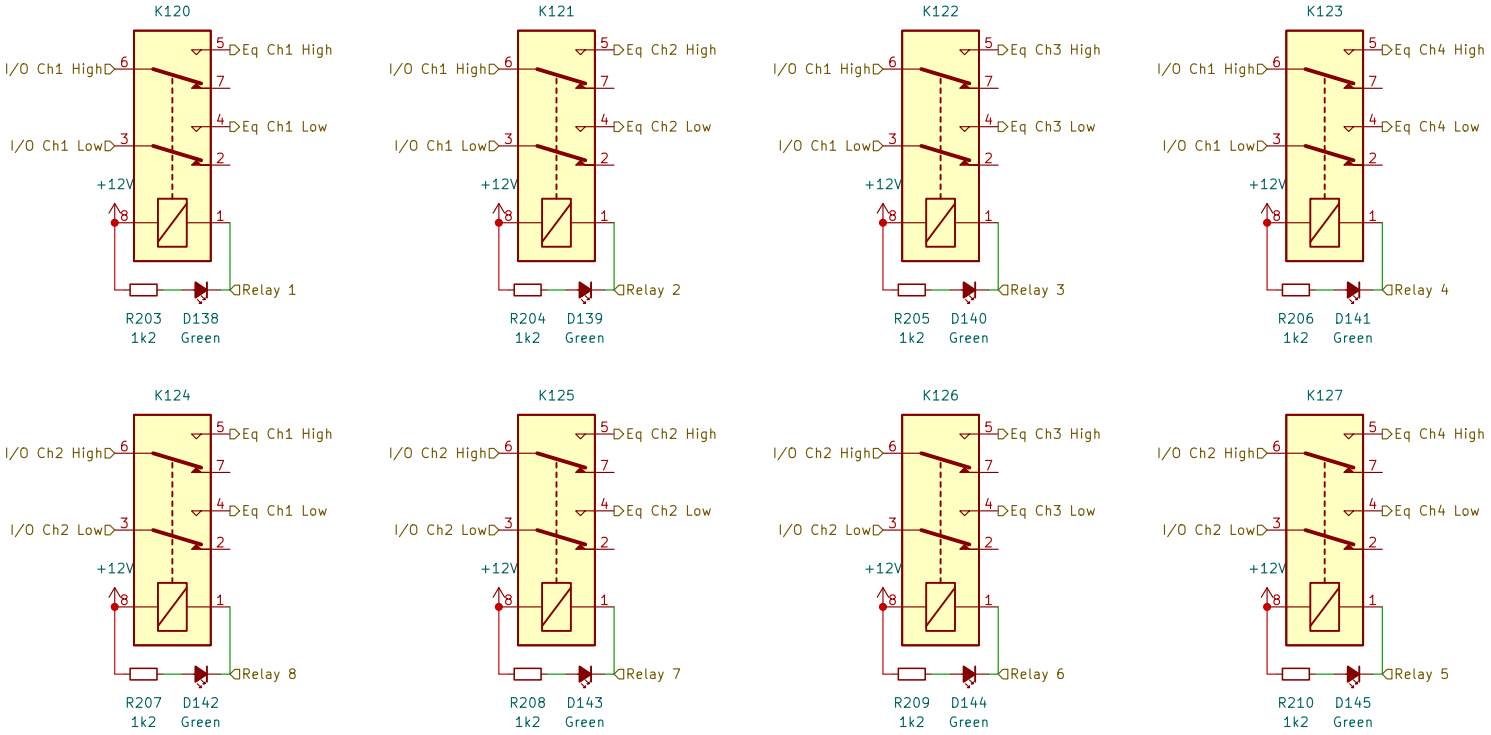
ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (High Current).kicad_sch

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: #/28

ix 8 Re



These relays are capable of switching upto 16 A
Picker Components PN# PC375-2C-12S4-X
Digikey PN# 2634-PC375-2C-12S4-X-ND
Relay 16 A DPDT (2 Form C) 12 VDC Coil

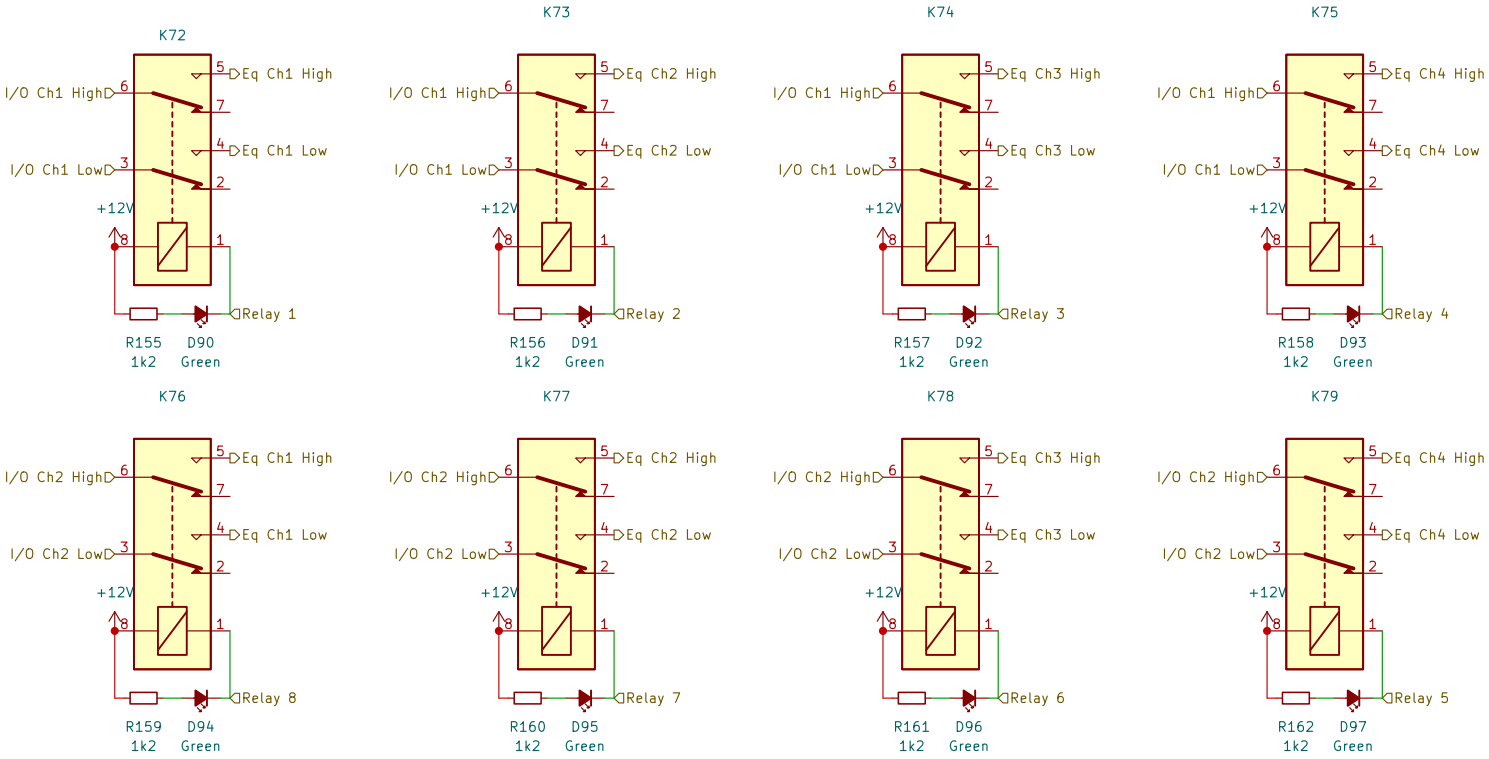
ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (High Current).kicad_sch

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: #/28

ix 8 Re



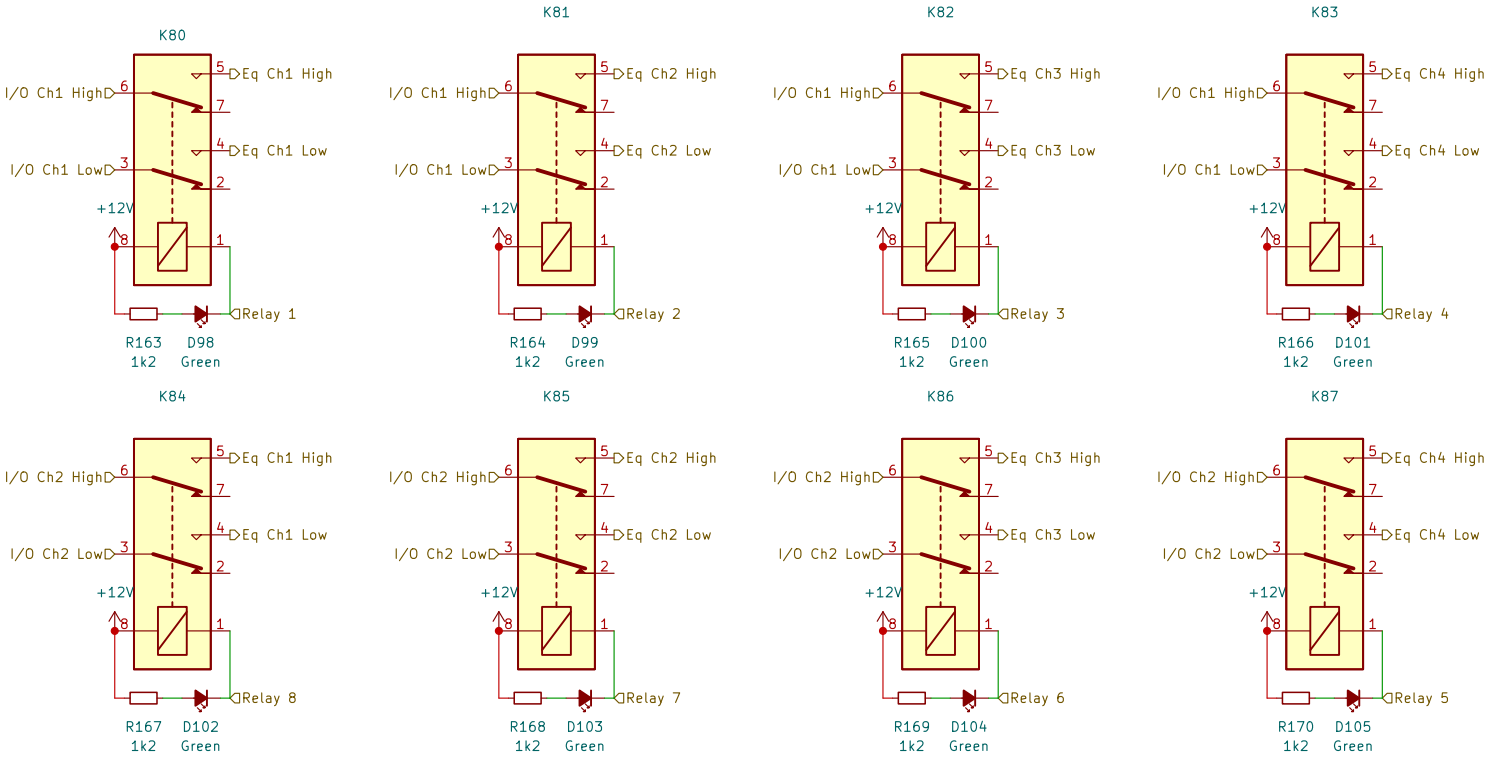
These relays are capable of switching upto 8 A
Omron PN# G2RL24CFDC12
Digi-Key PN# Z3088-ND
Relay 8 A DPDT (2 Form C) 12 VDC Coil

ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (Med Current).kicad_scn

x 8 Re

Title: CIB PCB		
Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: #/28



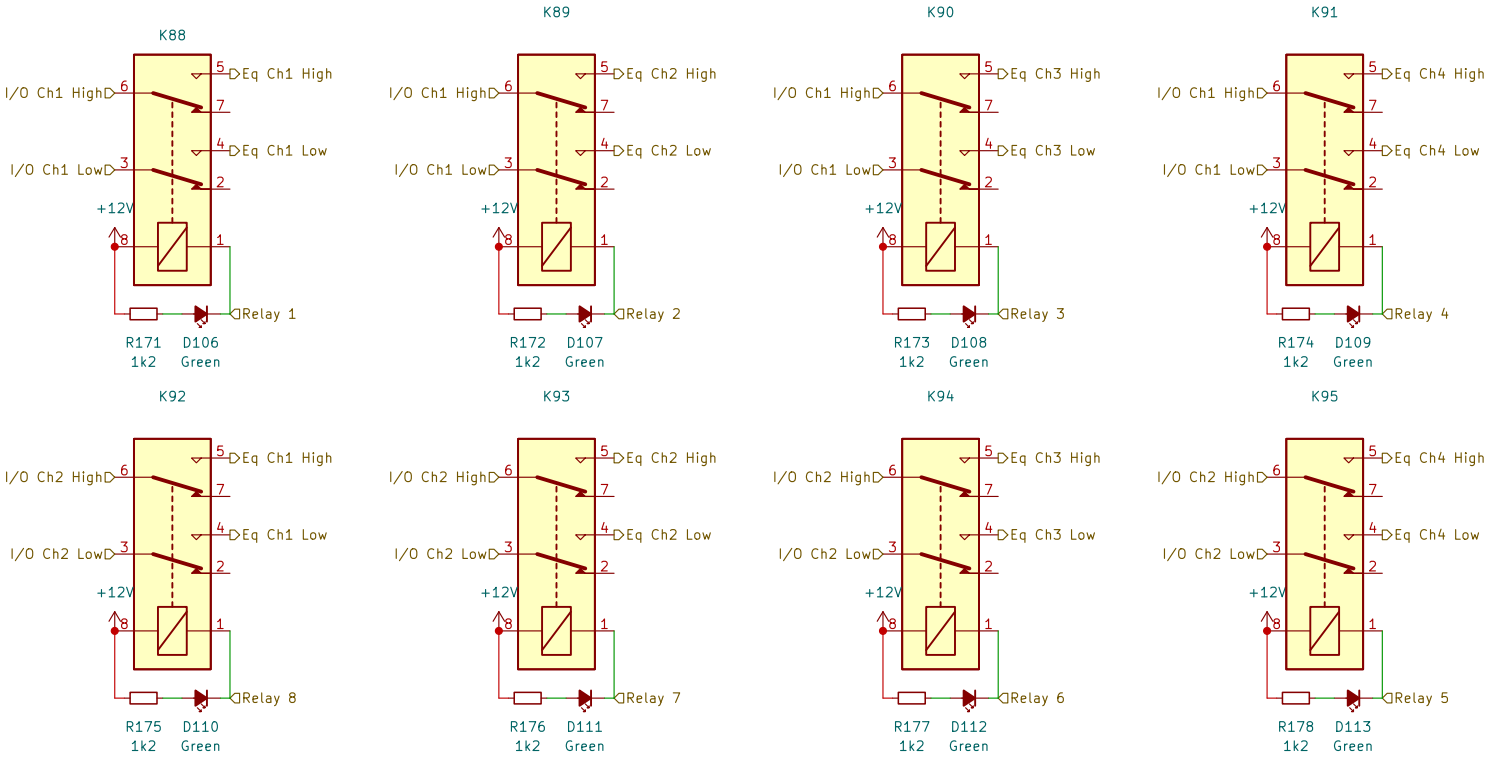
These relays are capable of switching upto 8 A
Omron PN# G2RL24CFDC12
Digi-Key PN# Z3088-ND
Relay 8 A DPDT (2 Form C) 12 VDC Coil

ChargePoint, Inc

Sheet: /Cross Point Matrix/Cro
File: Cross Point Matrix 8 Relays (Med Current).kicad_sch

x 8 Re

Title: CIB PCB		
Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: #/28



These relays are capable of switching upto 8 A
Omron PN# G2RL24CFDC12
Digi-Key PN# Z3088-ND
Relay 8 A DPDT (2 Form C) 12 VDC Coil

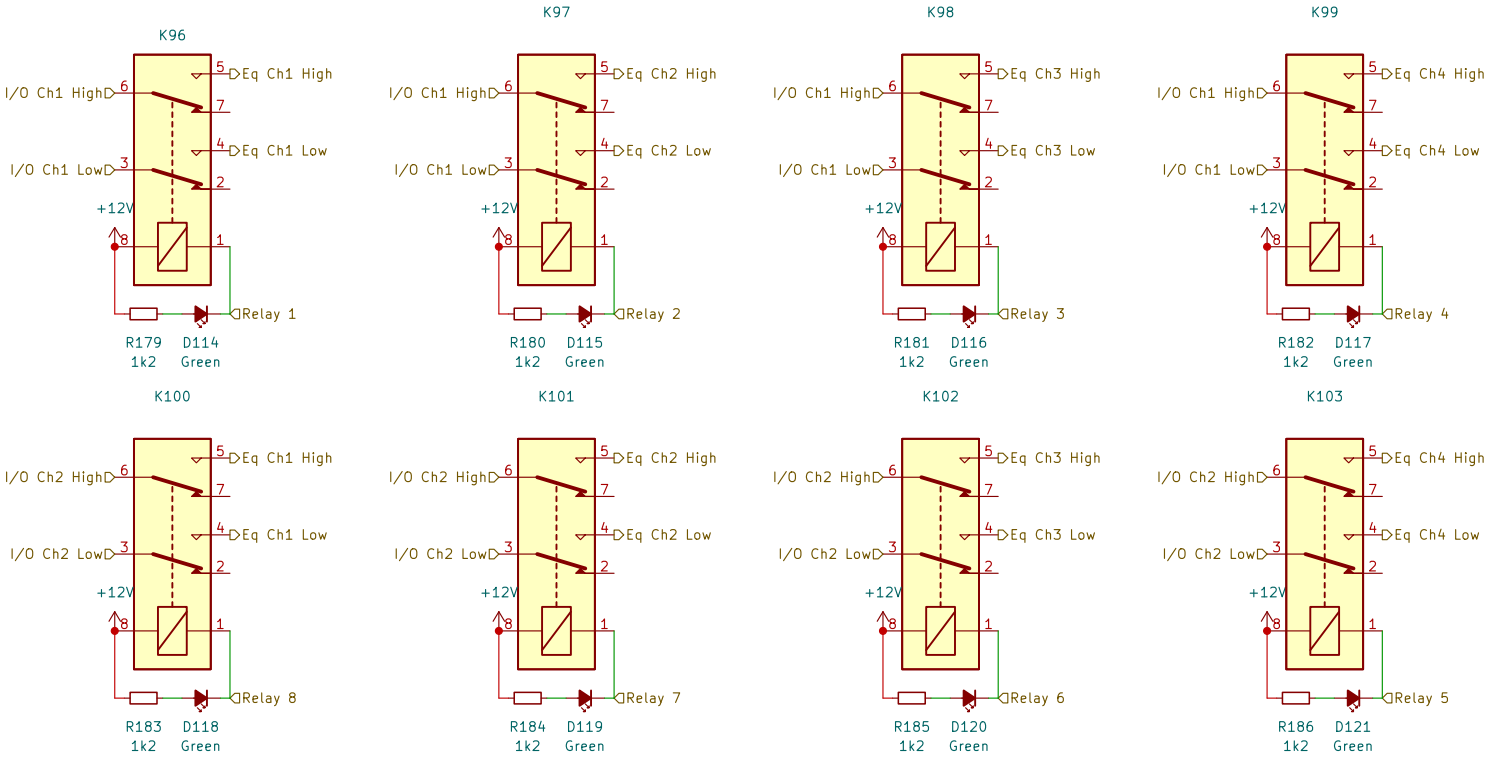
ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (Med Current).kicad_scn

rix 8 R

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: #/28



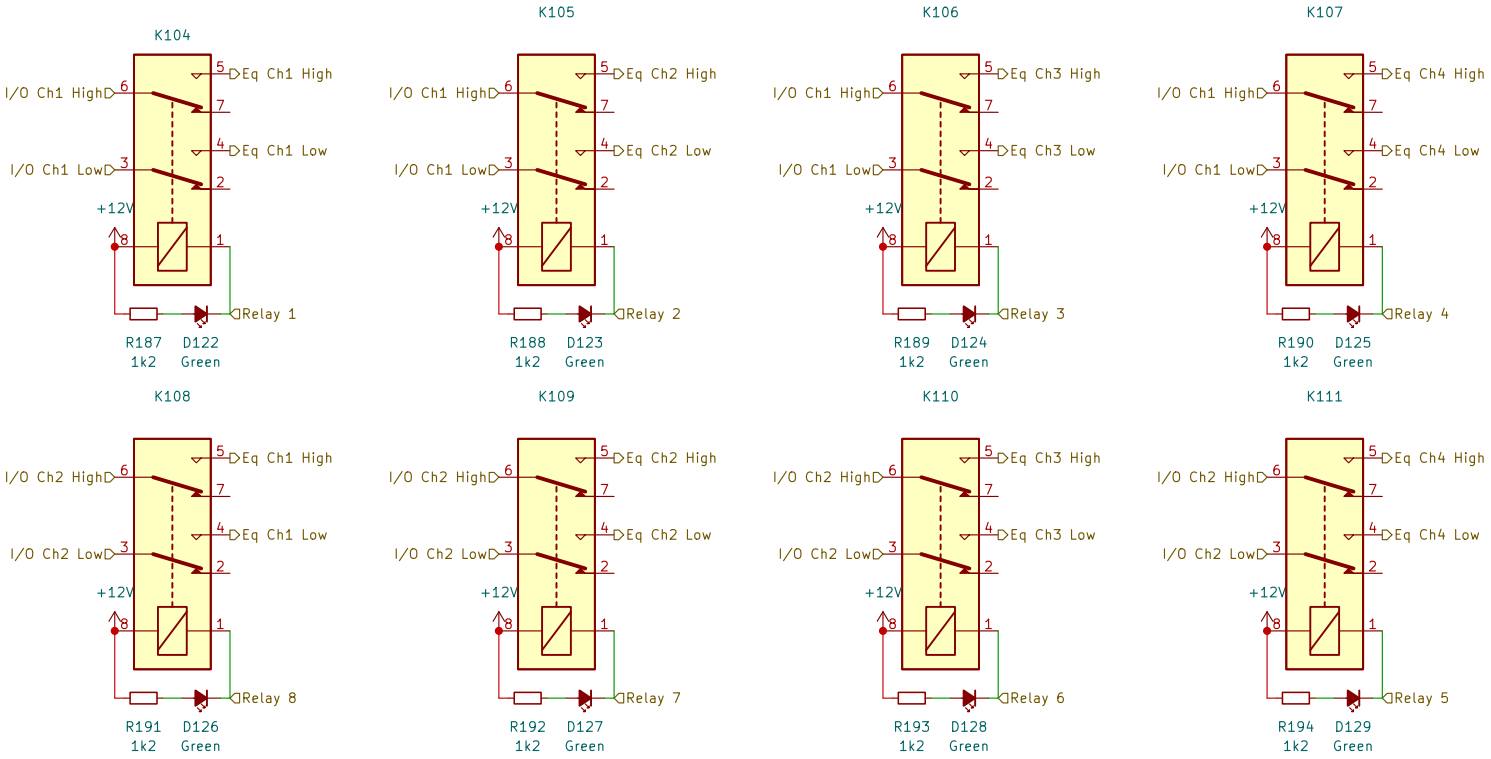
These relays are capable of switching upto 8 A
Omron PN# G2RL24CFDC12
Digi-Key PN# Z3088-ND
Relay 8 A DPDT (2 Form C) 12 VDC Coil

ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (Med Current).kicad_sch

rix 8 R

Title: CIB PCB		
Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: #/28



These relays are capable of switching upto 8 A
Omron PN# G2RL24CFDC12
Digi-Key PN# Z3088-ND
Relay 8 A DPDT (2 Form C) 12 VDC Coil

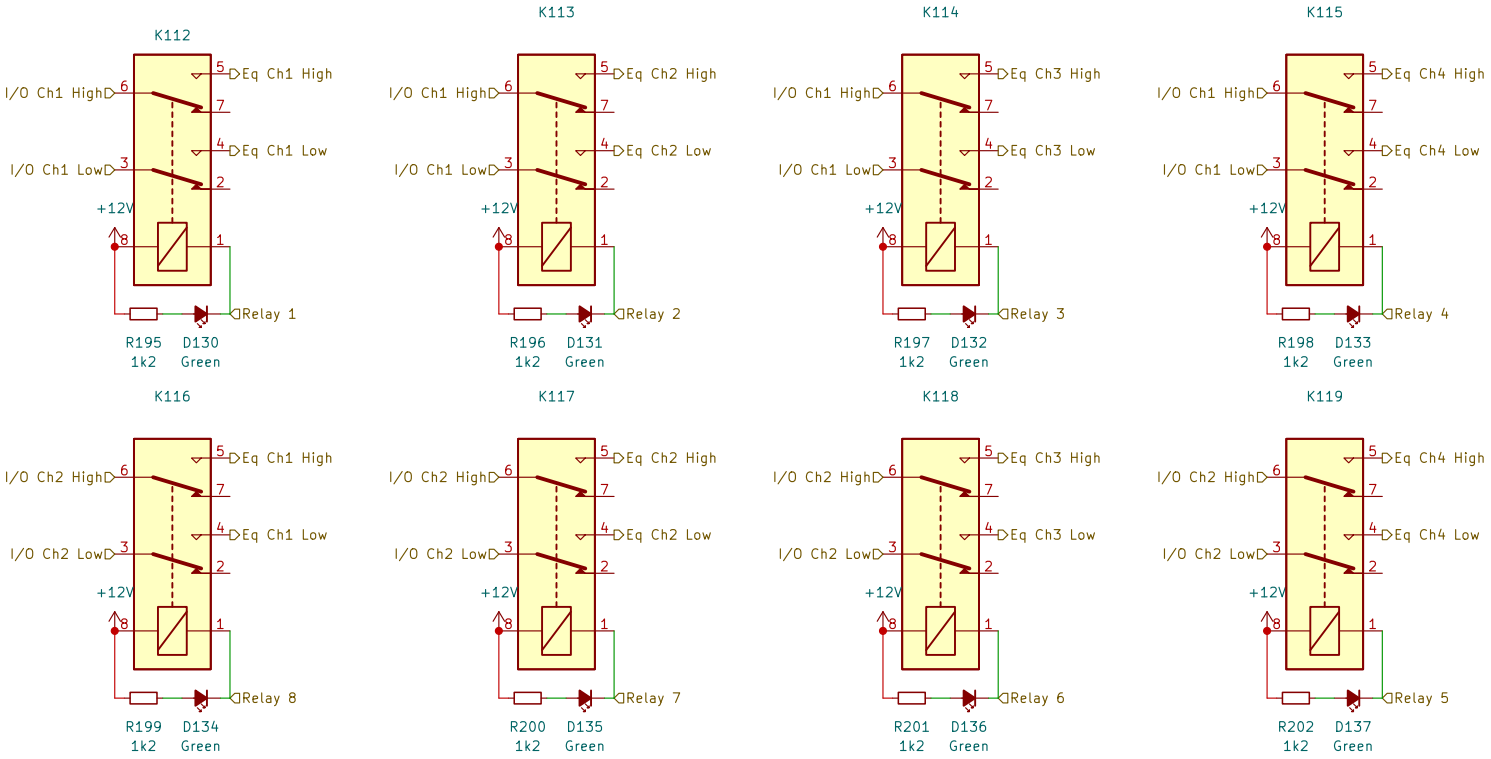
ChargePoint, Inc

Sheet: /Cross Point Matrix/Cros
File: Cross Point Matrix 8 Relays (Med Current).kicad_sch

Title: CIB PCB

Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: #/28

trix 8



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Size: A4	Date: 2022-05-27	**Rev:**
KiCad E.D.A. kicad (6.0.5-0)		Id: #/28

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