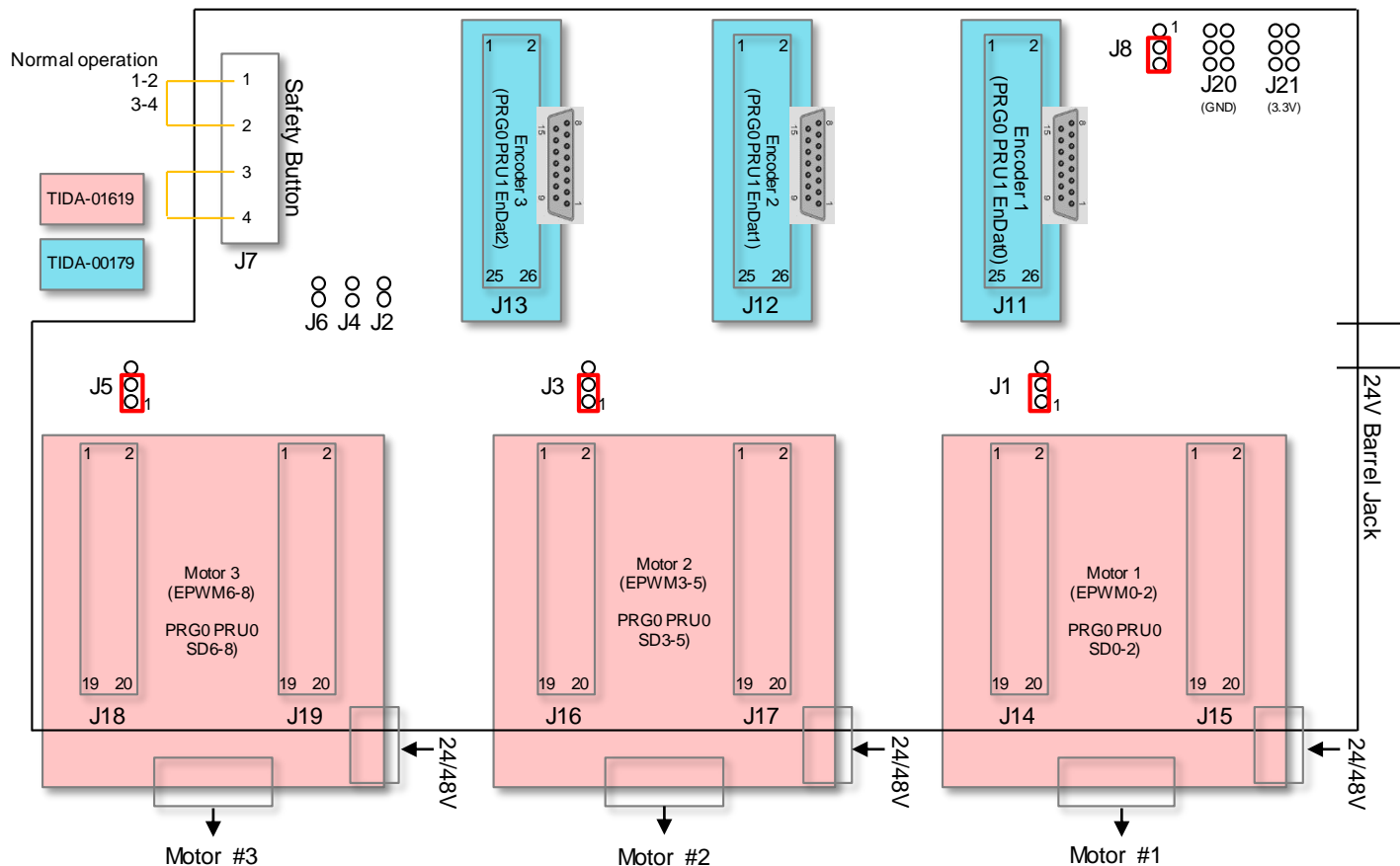


3-Axis Adapter Board Enablement

Adapter Board Layout and Default Jumpers

Adapter Board



NOTE: The AM64x GP EVM should be powered on before powering on the TIDA boards.

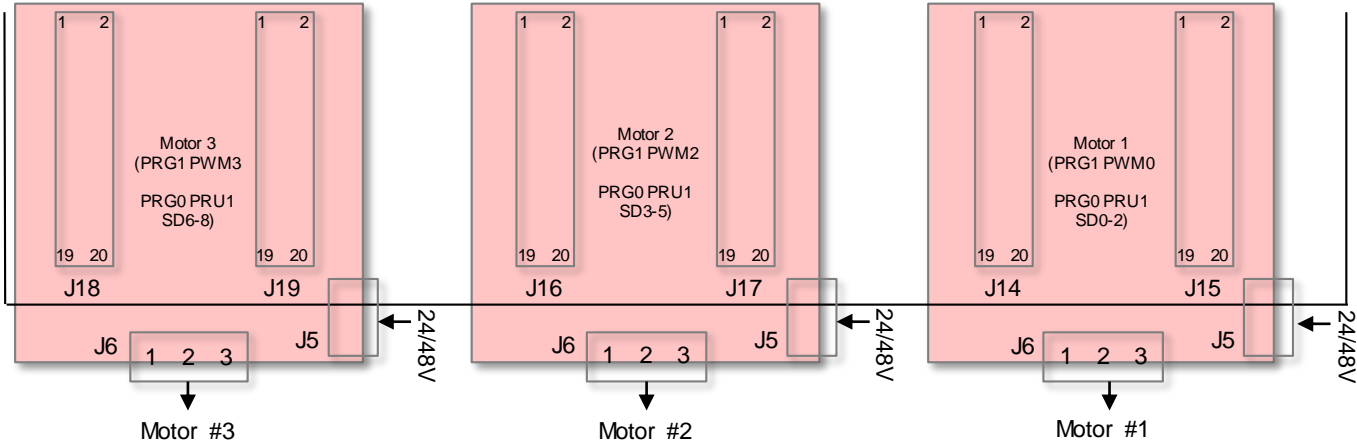
Jumper Settings

J2,J4,J6 (one per axis)
open – Sigma Delta cur/vol fdbk
closed – SAR cur/vol fdbk

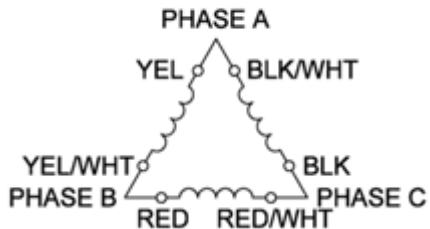
J1,J3,J5 (one per axis)
1-2: Three phase currents
2-3: Two phase currents one DC bus voltage

J8
1-2: Phase delayed eCAP PWM for SD clock
2-3: HW delayed clock for SD clock

TIDA-01619 Pins and Connections



DELTA CONFIGURATION



TIDA-01619 J6 Header		
Connection to BLY342D-48V-3200 (Delta configuration)		
1	Phase A	YEL & BLK/WHT
2	Phase B	RED & YEL/WHT
3	Phase C	BLK & RED/WHT

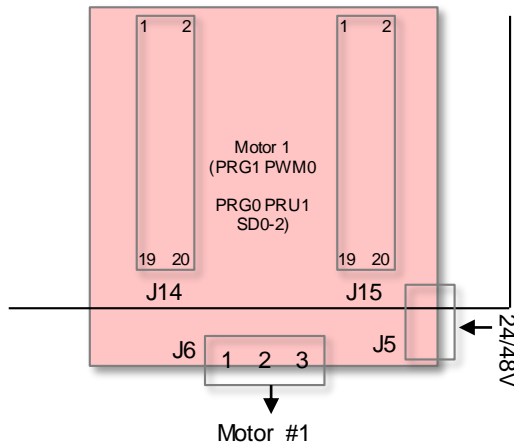
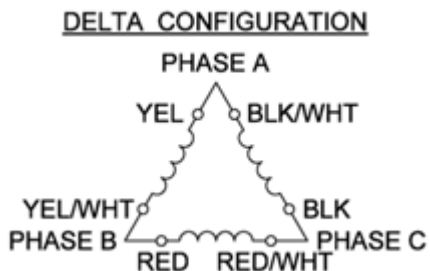
NOTE: Each TIDA-01619 board is separately powered from the J5 screw terminal with either 24 or 48 volts.

Adapter Board J14, J16, J18			
x denotes motor #			
3V3_Mx	1	2	NC
NC	3	4	GND
NC	5	6	NC
NC	7	8	NC
nFault_Mx	9	10	NC
NC	11	12	VDC_Mx
SPICLK_Mx	13	14	IC_Mx
NC	15	16	IB_Mx
NC	17	18	IA_Mx
NC	19	20	Temp_M1

Adapter Board J15, J17, J19			
x denotes motor #			
PWM_CL_Mx	1	2	GND
PWM_CH_Mx	3	4	NC
PWM_BL_Mx	5	6	NC
PWM_BH_Mx	7	8	NC
PWM_AL_Mx	9	10	NC
PWM_AH_Mx	11	12	SDI_Mx
NC	13	14	SDO_Mx
NC	15	16	EN_DRV
NC	17	18	SPICS_DRV_Mx
NC	19	20	NC

TIDA-01619 Pins and Connections

TIDA-01619 J6 Header		
Connection to BLY342D-48V-3200 (Delta configuration)		
1	PhaseA	YEL & BLK/WHT
2	PhaseB	RED & YEL/WHT
3	PhaseC	BLK & RED/WHT

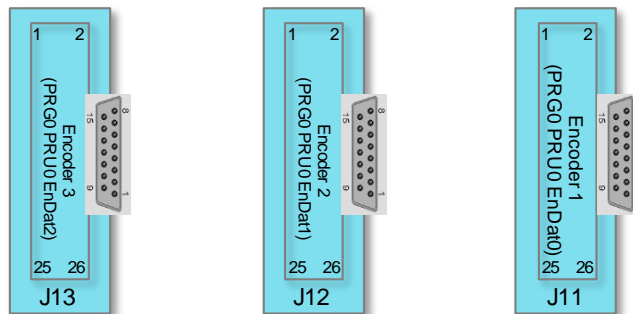


NOTE: Each TIDA-01619 board is separately powered from the J5 screw terminal with either 24 or 48 volts.

Adapter Board J14, J16, J18			
x denotes motor #			
3V3_Mx	1	2	NC
NC	3	4	GND
NC	5	6	NC
NC	7	8	NC
nFault_Mx	9	10	NC
NC	11	12	VDC_Mx
SPICLK_Mx	13	14	IC_Mx
NC	15	16	IB_Mx
NC	17	18	IA_Mx
NC	19	20	Temp_M1

Adapter Board J15, J17, J19			
x denotes motor #			
PWM_CL_Mx	1	2	GND
PWM_CH_Mx	3	4	NC
PWM_BL_Mx	5	6	NC
PWM_BH_Mx	7	8	NC
PWM_AL_Mx	9	10	NC
PWM_AH_Mx	11	12	SDI_Mx
NC	13	14	SDO_Mx
NC	15	16	EN_DRV
NC	17	18	SPICS_DRV_Mx
NC	19	20	NC

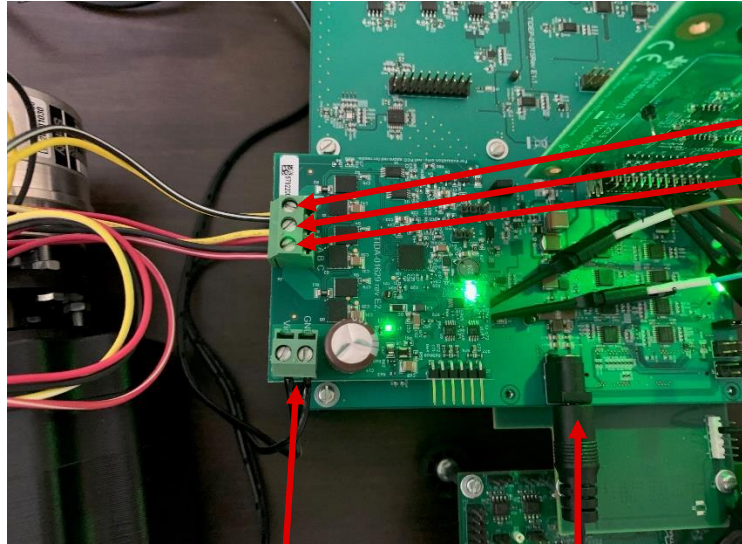
TIDA-00179 Pins and Connections



Adapter Board J11, J12, J13			
x denotes motor #			
GND	1	2	24V
GND	3	4	NC
GND	5	6	3.3V
GND	7	8	HDSL EN (GPIO0 81)
GND	9	10	ENDAT CLK x
GND	11	12	ENDAT TX x
GND	13	14	ENDAT DIR x
GND	15	16	ENDAT RX x
GND	17	18	NC
GND	19	20	NC
GND	21	22	NC
GND	23	24	NC
GND	25	26	NC

NOTE: All TIDA-00179 boards are powered from the 24 volt barrel jack connector on the adapter board. There is no need to plug a power supply directly into the TIDA-00179 boards.

NOTE: The AM64x GP EVM should be powered on before powering on the TIDA-01619 boards.



24 Volt screw
terminal input to
TIDA-01629 power
stage

24 Volt barrel jack
input to TIDEP-
01015 board

TIDA-01619 J6 Header Connection to BLY342D-48V-3200 (Delta configuration)		
1	PhaseA	YEL & BLK/WHT
2	PhaseB	RED & YEL/WHT
3	PhaseC	BLK & RED/WHT

