HD CONNECTOR

J3
FX2-100P-1.27DS(71)

P7_0_SCB2_SCL	A1	B1	P7_1_SCB2_SDA
P7_0_SCB2_CLK	A2	B2	P7_1_SCB2_MOSI
P7_2_SCB2_MISO	A3	B3	P7_3_SCB2_SEL0
	A4	B4	
GND	A5	B5	PWR_5V_IN
	A6	B6	M1_ANALOG_IU_VU_MCU
AGND	A7	B7	M1_ANALOG_IV_VV_MCU
	A8	B8	M1_ANALOG_IW_VW_MCU
	A9	B9	M1_ANALOG_IDCLINK_MCU
GND	A10	B10	PWR_5V_IN
M1_PWM_UL	A11	B11	M1_PWM_UH
M1_PWM_VL	A12	B12	M1_PWM_VH
M1_PWM_WL	A13	B13	M1_PWM_WH
M1_EMERGENCY_STOP	A14	B14	M1_ENABLE_GATE_DRIVER
BRAKEGATE1	A15	B15	M1_BRAKE_TEMP_MCU
	A16	B16	B16_AN_A4
AGND	A17	B17	B17_AN_B0
	A18	B18	B18_AN_B1
	A19	B19	B19_AN_B2_MCU
	A20	B20	M2_ANALOG_IDCLINK_MCU
GND	A21	B21	PWR_OUT_SYS
M2_PWM_UL	A22	B22	M2_PWM_UH
M2_PWM_VL	A23	B23	M2_PWM_VH
M2_PWM_WL	A24	B24	M2_PWM_WH
M2_EMERGENCY_STOP	A25	B25	M2_ENABLE_GATE_DRIVER
	A26	B26	
	A27	B27	
	A28	B28	B28_AN_A5
AGND	A29	B29	M2_ANALOG_IV_VV_MCU
	A30	B30	M2_ANALOG_IW_VW_MCU
	A31	B31	B31_AN_B7
	A32	B32	
	A33	B33	
	A34	B34	
	A35	B35	Z
B	A36	B36	A
	A37	B37	
	A38	B38	
	A39	B39	
	A40	B40	
GND	A41	B41	PWR_24V_IN
	A42	B42	
	A43	B43	
	A44	B44	
AGND	A45	B45	
	A46	B46	
PFCGK	A47	B47	
	A48	B48	
	A49	B49	
BRAKEGATE2	A50	B50	PFC_PWM_GATE2
PFC_PWM_GATE1	MH1	MH2	GND
GND			

H61 MountingHole
H62 MountingHole
H63 MountingHole
H64 MountingHole

MOTOR 1 M3 M1 CONNECTOR

J5

M1_PWM_UH	1	2	GND
M1_PWM_UL	3	4	
M1_PWM_VH	5	6	VDD3.3
M1_PWM_VL	7	8	
M1_PWM_WH	9	10	M3_ANALOG_IU+
M1_PWM_WL	11	12	GND
M1_EMERGENCY_STOP	13	14	M3_DCBSense_M
M1_BRAKE_TEMP	15	16	M3_ANALOG_IV+
	17	18	M3_ANALOG_IW+
AGND	19	20	VCC_15V

J4

PFC_PWM_GATE1	1	2	GND
PFC_PWM_GATE2	3	4	
PFCGK	5	6	M3_DCBSense
VAC+	7	8	VAC−
IPFC+	9	10	IPFC−

MOTOR 1 M5 CONNECTOR

J1
09221326921

GND	A1	B1	M1_5V
PFC_PWM_GATE1	A2	B2	BRAKEGATE1
M1_PFC_I_Analog	A3	B3	M1_BRAKE_TEMP_MCU
M1_PFC_V_Analog	A4	B4	M1_ANALOG_MOTOR_VDCLINK
M1_ANALOG_IU_VU	A5	B5	M1_BEMF_TEMP1
M1_ANALOG_IV_VV	A6	B6	M1_BEMF_TEMP2
M1_ANALOG_IW_VW	A7	B7	M1_BEMF_TEMP3
M1_ANALOG_IDCLINK	A8	B8	M1_B8
	A9	B9	M1_PWM_UL
	A10	B10	M1_PWM_UH
	A11	B11	M1_PWM_VL
	A12	B12	M1_PWM_VH
	A13	B13	M1_PWM_WL
	A14	B14	M1_PWM_WH
	A15	B15	M1_EMERGENCY_STOP
	A16	B16	M1_ENABLE_GATE_DRIVER
GND	MH1	MH2	GND
	SH1	SH2	

MOTOR 2 M5 CONNECTOR

J2
09221326921

GND	A1	B1	M2_5V
PFC_PWM_GATE2	A2	B2	BRAKEGATE2
	A3	B3	M2_BRAKE_TEMP
	A4	B4	M2_ANALOG_MOTOR_VDCLINK
M2_ANALOG_IU_VU	A5	B5	M2_B5
M2_ANALOG_IV_VV	A6	B6	M2_B6
M2_ANALOG_IW_VW	A7	B7	M2_B7
M2_ANALOG_IDCLINK	A8	B8	M2_B8
	A9	B9	M2_PWM_UL
	A10	B10	M2_PWM_UH
	A11	B11	M2_PWM_VL
	A12	B12	M2_PWM_VH
	A13	B13	M2_PWM_WL
	A14	B14	M2_PWM_WH
	A15	B15	M2_EMERGENCY_STOP
	A16	B16	M2_ENABLE_GATE_DRIVER
GND	MH1	MH2	GND
	SH1	SH2	

D1
PMEG3030EP
VCC_15V
PWR_24V_IN

R421 0
R422 0
J10
VDD3.3
M1_5V
PWR_5V_IN
M2_5V

J6
P7_2_SCB2_MISO 1 2 P7_3_SCB2_SEL0
P7_0_SCB2_CLK 3 4 P7_1_SCB2_MOSI
P7_1_SCB2_SDA 5 6 P7_0_SCB2_SCL
7 8 PWR_OUT_SYS
GND

J7
A 1 2 B
GND 3 4 Z
GND 5 6 PWR_OUT_SYS

VAC+ — R61 15k — C61 4.7nF — AGND AGND — Filter_VAC+
VAC− — R62 15k — C62 4.7nF — AGND AGND — Filter_VAC−
B19_AN_B2 — R63 15k — C63 4.7nF — AGND AGND — B19_AN_B2_MCU

Oohm Bridge

B28_AN_A5 — R64 0 — M1_PFC_I_Analog_MCU
M2_ANALOG_IU_VU_MCU — M2_ANALOG_IU_VU_MCU
R104 0 — M2_ANALOG_IU_VU
R103 0 — M2_B5
M2_ANALOG_IV_VV_MCU — R106 0 — M2_ANALOG_IV_VV
R105 0 — M2_B6
M2_ANALOG_IW_VW_MCU — R108 0 — M2_ANALOG_IW_VW
R107 0 — M2_B7
B19_AN_B2 — J12 Jumper_3_Open — M1_BEMF_TEMP3
M2_ANALOG_MOTOR_VDCLINK
B31_AN_B7 — R101 0 — M1_PFC_V_Analog_MCU
M2_BRAKE_TEMP
J11 — R102 0 — M3_DCBSense_M
R66 15k C64 4.7nF AGND AGND
R207 0 — M3_DCBSense
B16_AN_A4 — R76 0 — M1_ANALOG_MOTOR_VDCLINK_MCU

M2_ANALOG_IDCLINK_MCU — R303 0 — M2_ANALOG_IDCLINK
R109 0 — M2_B8
M1_ANALOG_IDCLINK_MCU — R201 0 — M1_ANALOG_IDCLINK
R202 0 — M1_B8
J14 — M3_IU+_FILTERED
B17_AN_B0 — R69 0 — M1_BEMF_TEMP1
R70 0 — Filter_VAC+
B18_AN_B1 — R71 0 — M1_BEMF_TEMP2
R72 0 — Filter_VAC−

R65 0 — AGND GND

R68 100k — VDD3.3
J21
M1_BRAKE_TEMP_MCU — M1_BRAKE_TEMP
M1_ANALOG_MOTOR_VDCLINK_MCU — M1_ANALOG_MOTOR_VDCLINK
R67 15k — AGND

R205 0 — M1_ANALOG_IU_VU
M1_ANALOG_IU_VU_MCU — J17 — R11 10k — VDD3.3
J13 — R13 100 — R14 2k — M3_ANALOG_IU+
M3_IU+_FILTERED — C11 220pF — AGND — J18

R204 0 — M1_ANALOG_IV_VV
M1_ANALOG_IV_VV_MCU — J19 — R21 10k — VDD3.3
J15 — R23 100 — R24 2k — M3_ANALOG_IV+
C21 220pF — AGND — J20

R203 0 — AGND
M1_ANALOG_IW_VW
M1_ANALOG_IW_VW_MCU — J22 — R31 10k — VDD3.3
J16 — R33 100 — R34 2k — M3_ANALOG_IW+
C31 220pF — AGND — J23

R208 0 — M1_PFC_I_Analog
M1_PFC_I_Analog_MCU — VDD3.3 — R41 10k
R42 0 — R43 100 — R44 2k — IPFC+
C41 220pF — AGND

R206 0 — M1_PFC_V_Analog
M1_PFC_V_Analog_MCU — VDD3.3 — R51 10k
R52 0 — R53 100 — R54 2k — IPFC−
C51 220pF — AGND

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