Grid reference: A B C D E F (columns), 1 2 3 4 (rows)

IC1

Pin	Signal		Pin	Signal
1	IN1		20	OUT1
2	IN2		19	OUT2
3	IN3		18	OUT3
4	IN4		17	OUT4
5	IN5		16	OUT5
6	IN6		15	OUT6
7	IN7		14	OUT7
8	IN8		13	OUT8
9	FAULT		12	GND
10	0E/R̄		11	VS

Signals: O1, O2, O3, O4, O5, O6, FAULT, OE → FO1, FO2, FO3, FO4, FO5, FO6
V_FIELD, GND

IC2

Pin	Signal		Pin	Signal
1	IN1		20	OUT1
2	IN2		19	OUT2
3	IN3		18	OUT3
4	IN4		17	OUT4
5	IN5		16	OUT5
6	IN6		15	OUT6
7	IN7		14	OUT7
8	IN8		13	OUT8
9	FAULT		12	GND
10	0E/R̄		11	VS

Signals: O12, O11, O10, O9, O8, O7, FAULT, OE → FO12, FO11, FO10, FO9, FO8, FO7
V_FIELD2, GND

RUN
+5V
RUN
FAULT

R3 R 0.1W 0603
R2 R 0.1W 0603
LED3 VLMTG1300-GS08 LEDC1608X100N
LED2 VLMTG1300-GS08 LEDC1608X100N
GND

Fault Indication link
Set RPI 'RUN' to pullup DI
Low = FAULT

K1 Jumper USER

J1 PRT-14017 SHDR40W82P254_2X20_5130X500X13

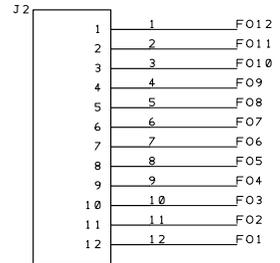| Signal		Pin		Pin		Signal
3V3	1	1	21	21		O11
5V	2	2	22	22		O12
O6	3	3	23	23		O13
5V	4	4	24	24		O14
O5	5	5	25	25		GND
GND	6	6	26	26		O15
O4	7	7	27	27		
O3	8	8	28	28		
GND	9	9	29	29		O16
O2	10	10	30	30		
O1	11	11	31	31		O17
O7	12	12	32	32		O18
O8	13	13	33	33		O19
	14	14	34	34		
RUN	15	15	35	35		O20
OE	16	16	36	36		O21
	17	17	37	37		O22
O9	18	18	38	38		O23
O10	19	19	39	39		GND
	20	20	40	40		O24

J2

Pin		Signal
1	1	FO12
2	2	FO11
3	3	FO10
4	4	FO9
5	5	FO8
6	6	FO7
7	7	FO6
8	8	FO5
9	9	FO4
10	10	FO3
11	11	FO2
12	12	FO1

J3

Pin		Signal
1	1	FO24
2	2	FO23
3	3	FO22
4	4	FO21
5	5	FO20
6	6	FO19
7	7	FO18
8	8	FO17
9	9	FO16
10	10	FO15
11	11	FO14
12	12	FO13

K2 Jumper USER

U1 TSRN-1-2450 TSRN-1-2450
+VIN, GND, +VOUT
5V
V_FIELD2
V_FIELD

J4: 1, 2, 3, 4

R1 R 0.1W 0603
LED1 VLMTG1300-GS08 LEDC1608X100N
FIELD PWR
GND

Capacitors:
C5 C 10uF 0805 — 5V
C2 0603G105ZATDA — 3V3
C1 0603G105ZATDA — V_FIELD2, 100nF 50V
C3 0603G105ZATDA — V_FIELD, 100nF 50V
C4 100uF 35V
GND

Resistor/Diode array (right side):

3V3

Resistor	Input	Diode	Output
R4 R 0.1W 0603	FO13	D14	O13
R5 R 0.1W 0603	FO14	D15	O14
R6 R 0.1W 0603	FO15	D17	O15
R7 R 0.1W 0603	FO16	D16	O16
R8 R 0.1W 0603	FO17	D21	O17
R9 R 0.1W 0603	FO18	D18	O18
R10 R 0.1W 0603	FO19	D20	O19
R11 R 0.1W 0603	FO20	D19	O20
R12 R 0.1W 0603	FO21	D25	O21
R13 R 0.1W 0603	FO22	D22	O22
R14 R 0.1W 0603	FO23	D24	O23
R15 R 0.1W 0603	FO24	D23	

GND

TITLE: PIIO DIO PCB
DRAWN BY: K Lawson
STATUS: Released
REVISION: 2
SHEET: 1 OF 1
DATE: 7 April 2020
A4