

iC-PD3948 EVAL IC273

EVALUATION KIT DESCRIPTION



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ORDERING INFORMATION

The evaluation kit includes a scanner module IC273 assembled with iC-PD3948, a LED module IC274 assembled with iC-SD85, and a suitable glass code disc. Please refer to Page 4 for an overview of kit parts.

Type	Description	Options	Order Designation
Evaluation kit	Kit with Scanner Module IC273 (61 mm x 64 mm), IR LED Module IC274 and Code Disc PD2S 39-2048		iC-PD3948 EVAL IC273
Illumination	Infrared LED module (28 mm x 46 mm)	with iC-SD85 (850 nm)	iC-SD85 EVAL IC274
	Blue LED module (28 mm x 46 mm)	with iC-TL46 (460 nm)	iC-TL46 EVAL IC274
Mother Board	Adapter PCB IC277 (80 mm x 110 mm)	incl. ribbon cable	iC277 EVAL IC277

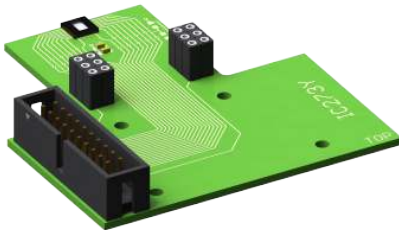


Figure 1: Scanner module



Figure 3: LED module

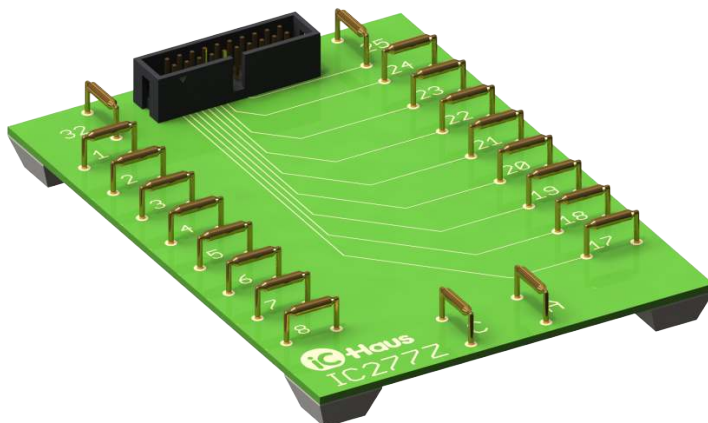


Figure 2: Mother board

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RELATED PRODUCTS AND DOCUMENTATION

- IC Documentation
 - <http://www.ichaus.de/PD3948>
- Code Disc Datasheet
 - <http://www.ichaus.de/PD3948>
- LED Datasheets
 - <http://www.ichaus.de/SD85>
 - <http://www.ichaus.de/TL85>
 - <http://www.ichaus.de/TL46>

SCANNER MODULE IC273

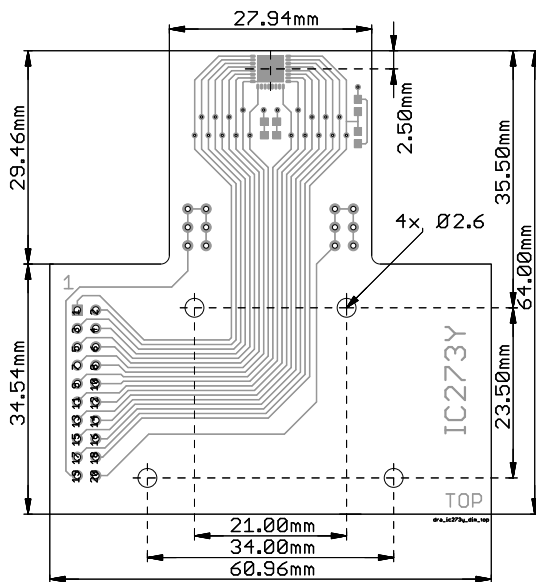


Figure 4: Scanner module (top view)

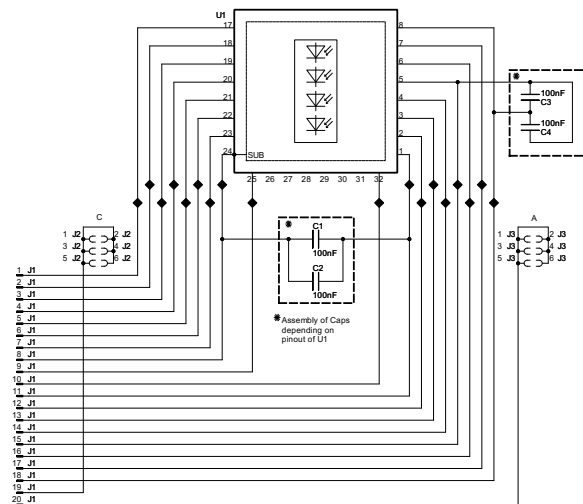


Figure 5: Circuit schematic

ASSEMBLED COMPONENTS

- J1 Signal Connector, 2x10-pin male
- J2, J3 LED Connector, 2x3-pin female
- U1 iC-PD3948
- C1 Capacitor 100 nF
- C2 Capacitor 1 μ F

Signal Connector and Mother Board Pinout

J1		iC277	
Pin	Tml	Name	Function
1	17	ND	D Track -
2	18	PD	D Track +
3	19	NC	C Track -
4	20	PC	C Track +
5	21	VRDC	D/C Track Reference
6	22	VRSC	S/C Track Reference
7	23		IC pin 23
8	24	GND	Ground
9	25		IC pin 25
10	32		IC pin 32

J1		iC277	
Pin	Tml	Name	Function
11	1	VCC	+4.5 V to 5.5V Supply
12	2	VREF	Reference Voltage Output
13	3	PSIN	Sine Track +
14	4	NSIN	Sine Track -
15	5	PCOS	Cosine Track +
16	6	NCOS	Cosine Track -
17	7	Z	Z Index Signal
18	8	NZ	Z Index Track -
19	C	J2	Terminal to LED Cathode
20	A	J3	Terminal to LED Anode

LED MODULE IC274

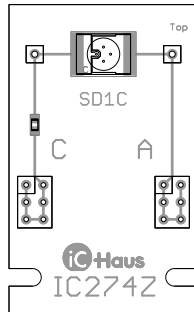


Figure 6: LED module (top view);
size approx. 28 mm x 46 mm

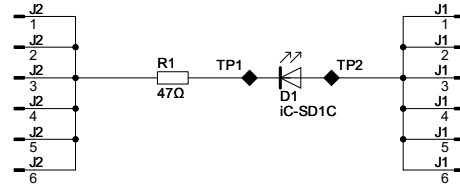


Figure 7: Circuit schematic

ASSEMBLED COMPONENTS

- D1 iC-SD85 BLCC SD1C
- R1 Series resistor 47 Ω
- J2, J3 LED Connector, 2x3-pin male

MOTHER BOARD IC277

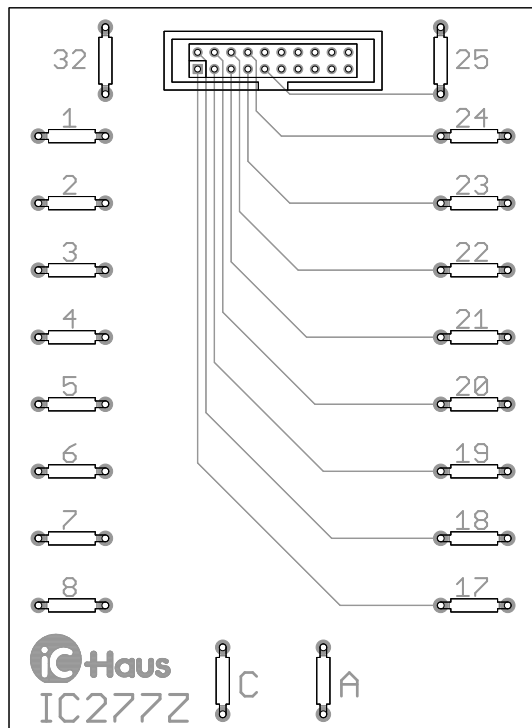


Figure 8: Mother board (top view);
size approx. 80 mm x 110 mm

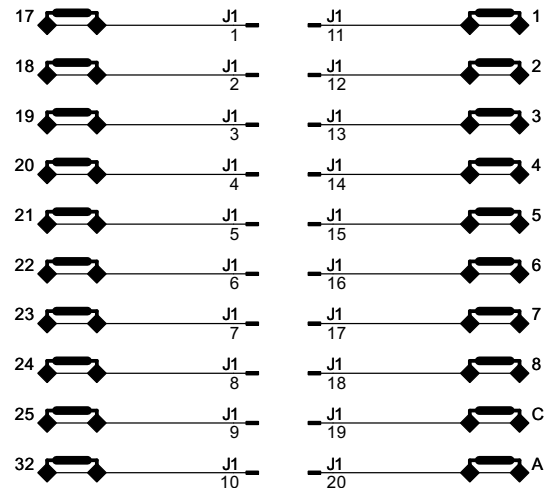


Figure 9: Circuit schematic

ASSEMBLED COMPONENTS

- J1 Cable Connector, 2x10-pin male
(for ribbon cable to IC273)

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OVERVIEW OF KIT ITEMS



Figure 10: Evaluation kit. Scope of delivery:
LED module, code disc, scanner module
(hub not included)



Figure 11: Mother board (supplied with ribbon cable)

APPLICATION EXAMPLE



Figure 12: Typical test setup

REVISION HISTORY

Rel.	Rel. Date	Chapter	Modification	Page
A1	2015-05-22	...	Initial release	all

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