

iC-TW4 EVAL TW4D

EVALUATION BOARD DESCRIPTION

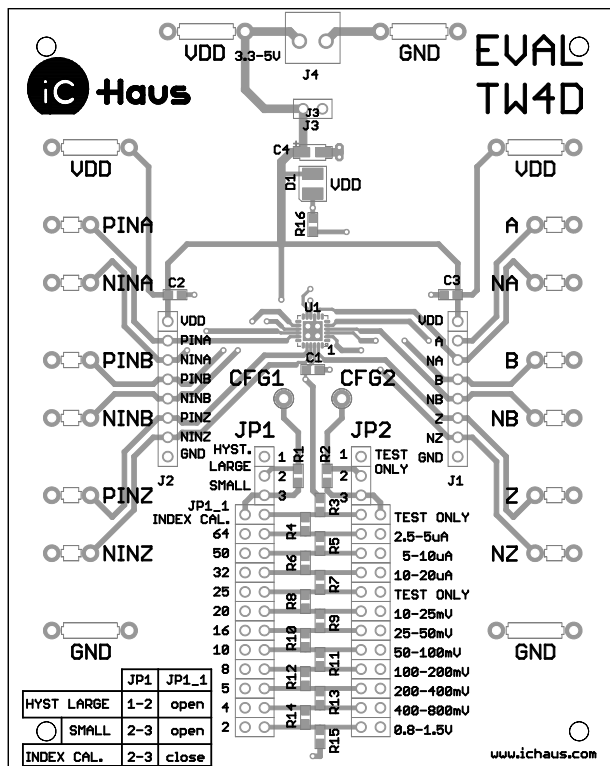
ORDERING INFORMATION

Type	Order Designation	Description Options
iC-TW4 Demo	EVAL TW4D	iC-TW4 Evaluation Board

BOARD TW4D

(size 110 mm x 75 mm)

TERMINAL DESCRIPTION



VDD	3.3 V ... 5 V
GND	Power Supply Voltage
PINA	Ground
NINA	Input A
PINB	Input NA
NINB	Input B
PINZ	Input NB
NINZ	Input Z
A	Input NZ
NA	Output A
B	Output NA
NB	Output B
Z	Output NB
NZ	Output Z
JP1	Output NZ
JP1_1 ... 12	Hysteresis Selection
JP2	Interpolation Factor and Index Calibration
JP2_1 ... 12	Test
JP3	Input Voltage Range + Test
JP4	Power Supply Pins
CFG1	Power Supply Jumper
CFG2	Configuration Pin 1
	Configuration Pin 2

Figure 1: Component side

iC-TW4 EVAL TW4D

EVALUATION BOARD DESCRIPTION

CIRCUIT DESCRIPTION

The TW4D evaluation board is equipped with the iC-TW4 8-bit sine/cosine interpolation IC with automatic offset correction. The board features multiple connectors for signal input and output. The iC-TW4D evaluation board is fully jumper configured. A detailed description of the parameter settings can be found in the corresponding datasheet of the iC-TW4.

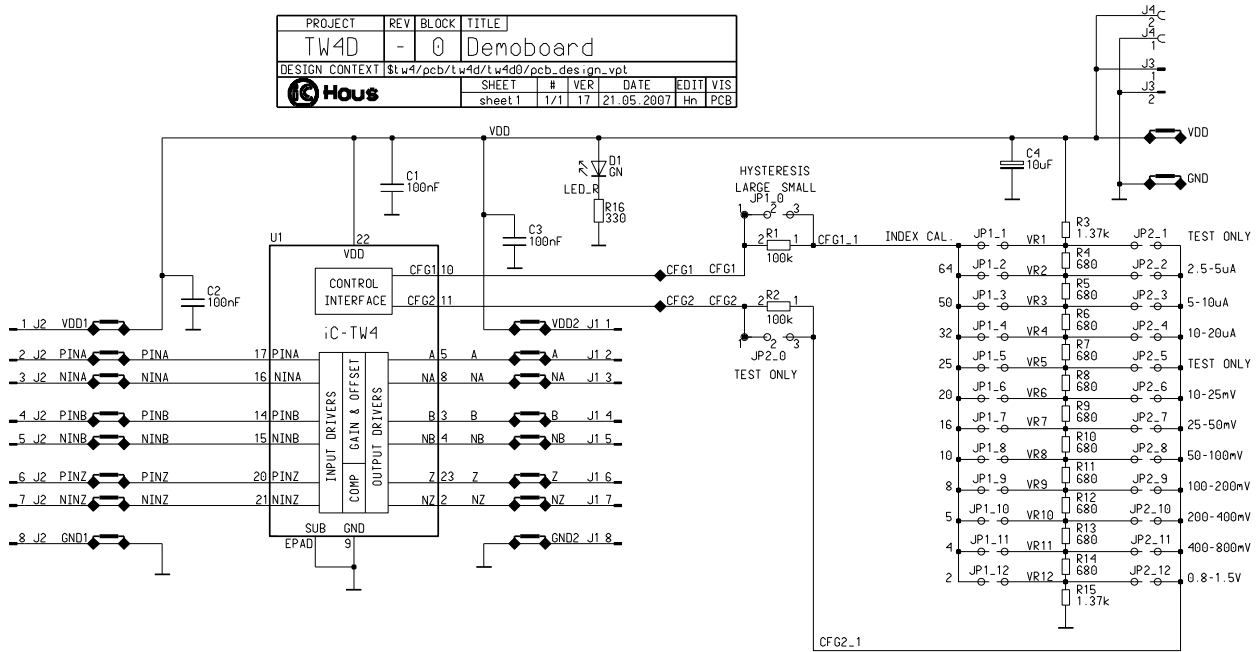


Figure 2: Circuit diagram

JUMPER DESCRIPTION

Closed Jumper	Comments
JP1_1	Index Calibration
JP1_2	Interpolation Factor x64
JP1_3	Interpolation Factor x50
JP1_4	Interpolation Factor x32
JP1_5	Interpolation Factor x25
JP1_6	Interpolation Factor x20
JP1_7	Interpolation Factor x16
JP1_8	Interpolation Factor x10
JP1_9	Interpolation Factor x8
JP1_10	Interpolation Factor x5
JP1_11	Interpolation Factor x4
JP1_12	Interpolation Factor x2

Closed Jumper	Comments
JP2_1	Test Only
JP2_2	2.5 ... 5 μ A
JP2_3	5 ... 10 μ A
JP2_4	10 ... 25 μ A
JP2_5	Test only
JP2_6	10 ... 25 mV
JP2_7	25 ... 50 mV
JP2_8	50 ... 100 mV
JP2_9	100 ... 200 mV
JP2_10	200 ... 400 mV
JP2_11	400 ... 800 mV
JP2_12	800 ... 1.5 mV

Closed Jumper	Comments
JP1_12	Large Hysteresis
JP1_23	Small Hysteresis

Closed Jumper	Comments
JP2_12	Input Amplitude Configuration
JP2_23	Test Only

iC-TW4 EVAL TW4D

EVALUATION BOARD DESCRIPTION



Rev A3, Page 3/3

ASSEMBLY PART LIST

Device	Value (typical)	Comment
U1	iC-TW4 QFN24	Sine/Cosine Interpolation IC
C1, C2, C3,	100 nF	Capacitors for Input Filter
C4,	10 μ F	Capacitors for Input Filter
R1, R2	100 k Ω	Generic SMD Resistor 1% 0603
R3, R15	1.37 k Ω	Generic SMD Resistor 1% 0603
R4 ... R14	680 Ω	Generic SMD Resistor 1% 0603
R16	330 Ω	Generic SMD Resistor 1% 0603
J1, J2	SL-LP1 112 8G	Generic Conn Header Tin
J3	SL-LP1 112 2G	Generic Conn Header Tin
J1_0, J2_0	SL-LP1 097 3G	Generic Conn Header Tin
J1_x, J2_x	SL-LP1 2 097 24G	Generic Conn Header Tin
CFG1, CFG2	S1-F	Generic Solder Pin

This specification is for a newly developed product. iC-Haus therefore reserves the right to change or update, without notice, any information contained herein, design and specification; and to discontinue or limit production or distribution of any product versions. Please contact iC-Haus to ascertain the current data. Copying – even as an excerpt – is only permitted with iC-Haus approval in writing and precise reference to source.

iC-Haus does not warrant the accuracy, completeness or timeliness of the specification on this site and does not assume liability for any errors or omissions in the materials. The data specified is intended solely for the purpose of product description. No representations or warranties, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information/specification or the products to which information refers and no guarantee with respect to compliance to the intended use is given. In particular, this also applies to the stated possible applications or areas of applications of the product.

iC-Haus conveys no patent, copyright, mask work right or other trade mark right to this product. iC-Haus assumes no liability for any patent and/or other trade mark rights of a third party resulting from processing or handling of the product and/or any other use of the product.

As a general rule our developments, IPs, principle circuitry and range of Integrated Circuits are suitable and specifically designed for appropriate use in technical applications, such as in devices, systems and any kind of technical equipment, in so far as they do not infringe existing patent rights. In principle the range of use is limitless in a technical sense and refers to the products listed in the inventory of goods compiled for the 2008 and following export trade statistics issued annually by the Bureau of Statistics in Wiesbaden, for example, or to any product in the product catalogue published for the 2007 and following exhibitions in Hanover (Hannover-Messe).

We understand suitable application of our published designs to be state-of-the-art technology which can no longer be classed as inventive under the stipulations of patent law. Our explicit application notes are to be treated only as mere examples of the many possible and extremely advantageous uses our products can be put to.