

### Overview

Trenz Electronic TE0603 Header baseboard provide interface extensions for TE0600 module. The following parts are available for application purposes: 4 LEDs, Ethernet connector, Micro SD connector. A 14-pin JTAG connector for Xilinx parallel cable III, IV and USB cable HW-USB is made available for easy attachment. Flexible power supply is possible through screw terminals (J10) or dedicated DC jack (J13).

### Features

- Board power supply via screw terminals, DC jack
- JTAG header compatible with Xilinx parallel cable III, IV and USB cable HW-USB
- Small form factor: 115x70 mm
- Micro SD connector
- 5 Header connectors with up to 114 user IOs
- 2 Push-buttons for reset and user function

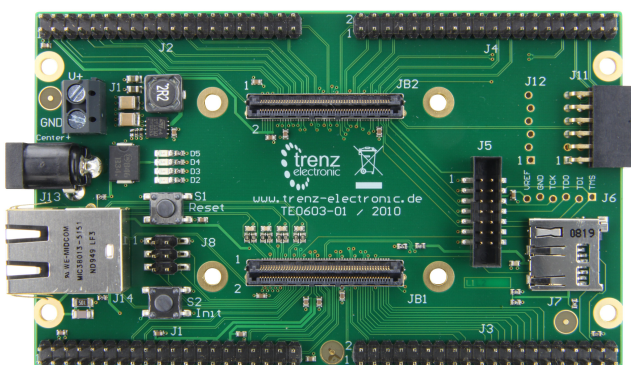


Figure 2: TE0603 without TE0600 module (top view)

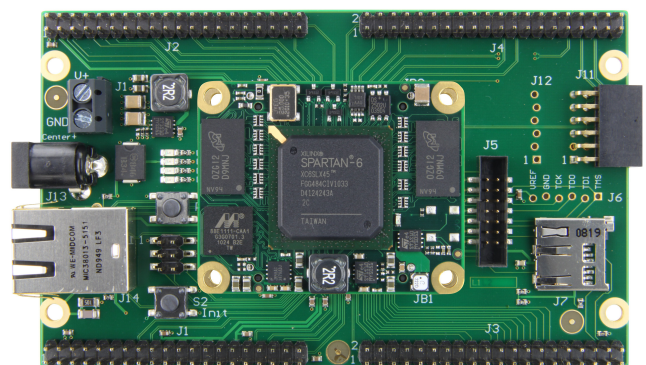


Figure 1: TE0603 with TE0600 module (top view)

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# 1 Assembly diagram

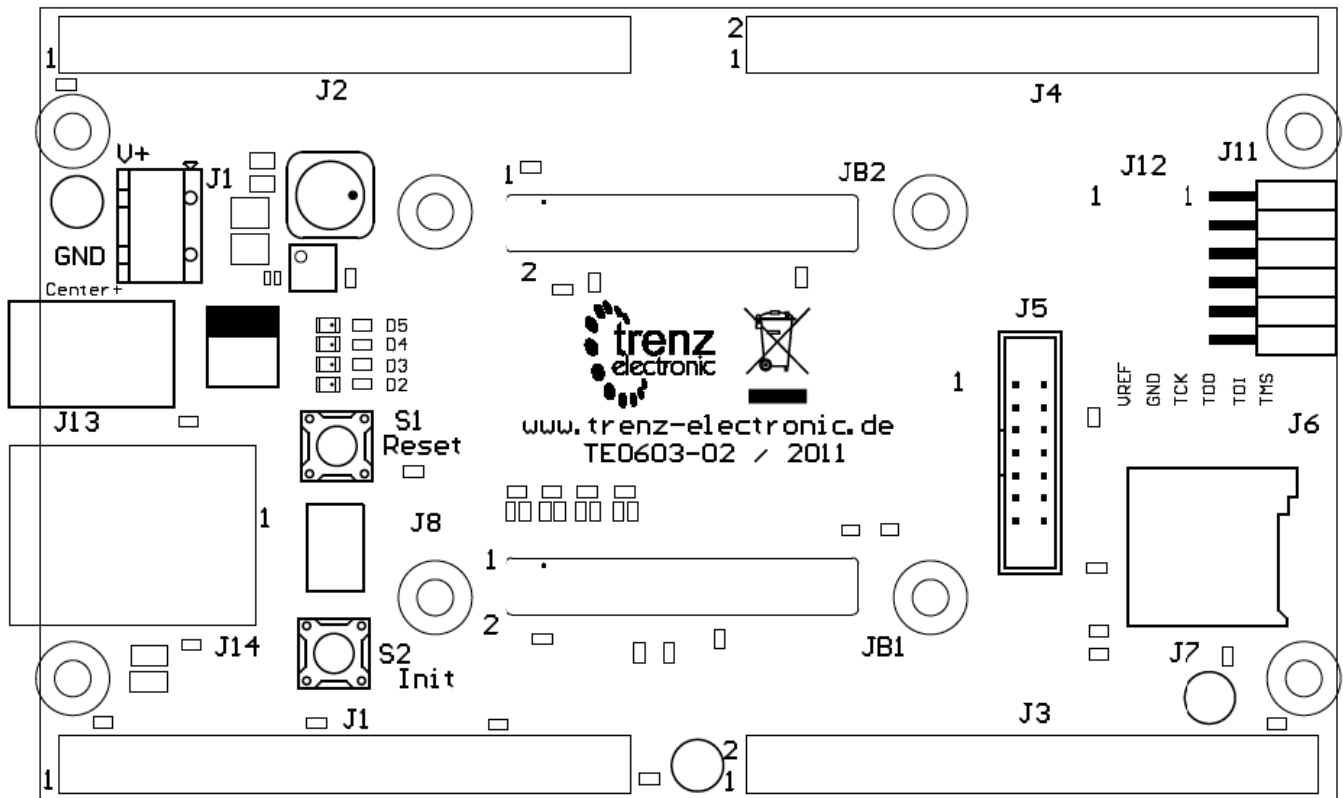


Figure 3: TE0603 assembly diagram

Header designators changed in REV 02

REV01	REV02
J1	JB1A
J2	JB2A
J3	JB1B
J4	JB2B

## 2 Dimensions

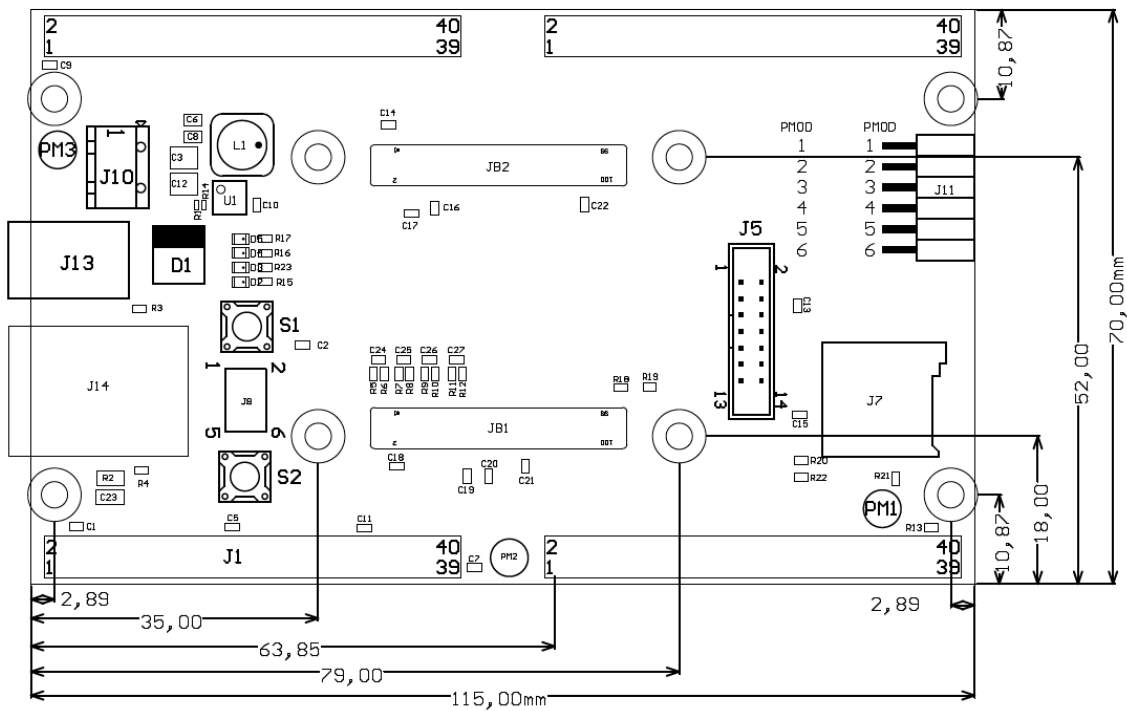


Figure 4: TE0603 dimensions

## 3 Pin-out tables

Pin	Net	FPGA pin	Type
1	3.3V	-	Power
2	3.3V	-	Power
3	3.3V	-	Power
4	3.3V	-	Power
5	Init	T6	Special
6	EN	-	Special
7	B2B_B2_L60_N	R7	IO
8	B2B_B2_L60_P	T7	IO
9	B2B_B2_L59_P	R9	IO
10	B2B_B2_L59_N	R8	IO
11	GND	-	Power
12	GND	-	Power
13	B2B_B2_L57_P	AA4	IO
14	B2B_B2_L57_N	AB4	IO
15	B2B_B2_L49_P	AA6	IO
16	B2B_B2_L49_N	AB6	IO
17	2.5V	-	Power
18	2.5V	-	Power
19	B2B_B2_L44_P	W10	IO
20	B2B_B2_L44_N	Y10	IO
21	B2B_B2_L18_N	W13	IO

Pin	Net	FPGA pin	Type
22	B2B_B2_L18_P	V13	IO
23	B2B_B2_L8_P	U17	IO
24	B2B_B2_L8_N	U16	IO
25	GND	-	Power
26	GND	-	Power
27	B2B_B2_L11_N	W17	IO
28	B2B_B2_L11_P	V17	IO
29	1.2V	-	Power
30	1.2V	-	Power
31	B2B_B2_L48_P	Y7	IO
32	B2B_B2_L48_N	AB7	IO
33	B2B_B2_L45_P	AA8	IO
34	B2B_B2_L45_N	AB8	IO
35	B2B_B2_L43_P	Y9	IO
36	B2B_B2_L43_N	AB9	IO
37	B2B_B2_L41_P	AA10	IO
38	B2B_B2_L41_N	AB10	IO
39	1.5V	-	Power
40	1.5V	-	Power

Table 1: JB1A - J1 Pin-out

Pin	Net	FPGA pin	Type
1	VCCIO0	-	Power
2	3.3V	-	Power
3	B2B_PROGB	-	Special
4	HSWAPEN	A3	Special
5	MR	-	Special
6	PFI	-	Special
7	B2B_B0_L1	A4	IO
8	GND	-	Power
9	B2B_B3_L59_N	H8	IO
10	B2B_B3_L59_P	J7	IO
11	B2B_B3_L9_P	T4	IO
12	B2B_B3_L9_N	T3	IO
13	B2B_B3_L60_P	B2	IO
14	B2B_B3_L60_N	B1	IO
15	B2B_B0_L2_P	C5	IO
16	B2B_B0_L2_N	A5	IO
17	B2B_B0_L4_N	A6	IO
18	B2B_B0_L4_P	B6	IO
19	GND	-	Power
20	GND	-	Power
21	B2B_B0_L5_N	A7	IO
22	B2B_B0_L5_P	C7	IO
23	B2B_B0_L6_N	A8	IO

Pin	Net	FPGA pin	Type
24	B2B_B0_L6_P	B8	IO
25	B2B_B0_L3_P	D6	IO
26	B2B_B0_L3_N	C6	IO
27	B2B_B0_L32_P	D7	IO
28	B2B_B0_L32_N	D8	IO
29	B2B_B0_L33_N	C10	IO
30	B2B_B0_L33_P	D10	IO
31	GND	-	Power
32	GND	-	Power
33	B2B_B0_L34_N	A10	IO
34	B2B_B0_L34_P	B10	IO
35	B2B_B0_L37_N	A12	IO
36	B2B_B0_L37_P	B12	IO
37	B2B_B0_L8_N	A9	IO
38	B2B_B0_L8_P	C9	IO
39	B2B_B0_L35_N	A11	IO
40	B2B_B0_L55_P	C11	IO

Table 2: JB2A - J2 Pin-out

Pin	Net	FPGA pin	Type
1	B2B_B2_L21_P	Y15	IO
2	B2B_B2_L21_N	AB15	IO
3	B2B_B2_L15_P	Y17	IO
4	B2B_B2_L15_N	AB17	IO
5	B2B_B2_L6_P	W18	IO
6	B2B_B2_L6_N	Y18	IO
7	B2B_B2_L9_N	V18	IO
8	B2B_B2_L9_P	V19	IO
9	GND	-	Power
10	GND	-	Power
11	B2B_B2_L5_P	Y19	IO
12	B2B_B2_L5_N	AB19	IO
13	B2B_B2_L4_N	T17	IO
14	B2B_B2_L4_P	T18	IO
15	B2B_B2_L10_N	R15	IO
16	B2B_B2_L10_P	R16	IO
17	B2B_B2_L31_N	AB12	IO
18	SUSPEND	N15	Special
19	GND	-	Power
20	GND	-	Power
21	VBATT	R17	Power
22	VFS	P16	Special
23	RFUSE	P15	Special
24	AWAKE	T19	Special
25	CSO_B	T5	Special

Pin	Net	FPGA pin	Type
26	CCLK	Y21	SPI
27	MISO	AA20	SPI
28	MOSI	AB20	SPI
29	MISO3	U13	SPI
30	MISO2	U14	SPI
31	GND	-	Power
32	GND	-	Power
33	B2B_B2_L2_N	AB21	IO
34	B2B_B2_L2_P	AA21	IO
35	B2B_B2_L42_P	V11	IO
36	B2B_B2_L42_N	W11	IO
37	B2B_B2_L29_N	Y12	IO
38	B2B_B2_L32_N	AB11	IO
39	GND	-	Power
40	GND	-	Power

Table 3: JB1B - J3 Pin-out

Pin	Net	FPGA pin	Type
1	B2B_B0_L38_P	C13	IO
2	B2B_B0_L38_N	A13	IO
3	B2B_B0_L50_P	B14	IO
4	B2B_B0_L50_N	A14	IO
5	B2B_B0_L51_P	C15	IO
6	B2B_B0_L51_N	A15	IO
7	B2B_B0_L63_P	B16	IO
8	B2B_B0_L63_N	A16	IO
9	B2B_B0_L49_N	C14	IO
10	B2B_B0_L49_P	D14	IO
11	GND	-	Power
12	GND	-	Power
13	B2B_B1_L10_P	F16	IO
14	B2B_B1_L10_N	F17	IO
15	B2B_B1_L21_N	J16	IO
16	B2B_B1_L21_P	K16	IO
17	B2B_B1_L9_P	G16	IO
18	B2B_B1_L9_N	G17	IO
19	B2B_B1_L61_N	K18	IO
20	B2B_B1_L61_P	L17	IO
21	B2B_B1_L59	P19	IO
22	GND	-	Power
23	B2B_B1_L20_N	A21	IO
24	B2B_B1_L20_P	A20	IO
25	B2B_B1_L19_N	B22	IO
26	B2B_B1_L19_P	B21	IO
27	B2B_B0_L66_N	D17	IO

Pin	Net	FPGA pin	Type
28	B2B_B0_L66_P	E16	IO
29	B2B_B0_L62_N	C16	IO
30	B2B_B0_L62_P	D15	IO
31	GND	-	Power
32	GND	-	Power
33	B2B_B0_L65_P	B18	IO
34	B2B_B0_L65_N	A18	IO
35	B2B_B0_L64_P	C17	IO
36	B2B_B0_L64_N	A17	IO
37	B2B_B0_L36_P	D11	IO
38	B2B_B0_L36_N	C12	IO
39	B2B_B0_L7_N	C8	IO
40	B2B_B0_L7_P	D9	IO

Table 4: JB2C - J4 Pin-out

Pin	Net	FPGA pin	Micro SD pin
1	B2B_B2_L42_N	W11	SD DAT2
2	B2B_B2_L42_P	V11	CD/DAT3
3	B2B_B2_L32_N	AB11	CMD
4	3.3V	-	VDD
5	B2B_B2_L29_N	Y12	CLK
6	GND	-	VSS
7	B2B_B2_L2_P	AA21	DAT0
8	B2B_B2_L2_N	AB21	DAT1
9	-	-	N/C
10	-	-	N/C

Table 5: J7 Micro SD Socket pin-out

Pin	Net	FPGA pin	Type
1	B2B_B0_L65_P	B18	IO
2	B2B_B0_L62_N	C16	IO
3	B2B_B0_L65_N	A18	IO
4	B2B_B0_L62_P	D15	IO
5	B2B_B0_L64_P	C17	IO
6	B2B_B0_L7_P	D9	IO
7	B2B_B0_L64_N	A17	IO
8	B2B_B0_L7_N	C8	IO
9	GND	-	Power
10	GND	-	Power
11	3.3V	-	Power
12	3.3V	-	Power

Table 6: J11 Pin-out

J11 First pin mark "1" at PCB placed at incorret place, please refer Assembly diagram for correct pin 1 position.

Pin	Net	FPGA pin	Type
1	B2B_B0_L66_N	D17	IO
2	B2B_B0_L66_P	E16	IO
3	B2B_B0_L36_N	C12	IO
4	B2B_B0_L36_P	D11	IO
5	GND	-	Power
6	3.3V	-	Power

**Table 7: J12 Pin-out**

J12 First pin mark “1” at PCB placed at incorret place, please refer Assembly diagram for correct pin 1 position.

## 4 Glossary of Abbreviations and Acronyms



A WARNING notice denotes a hazard. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in damage to the product or loss of important data. Do not proceed beyond a WARNING notice until the indicated conditions are fully understood and met.



A CAUTION notice denotes a risk. It calls attention to an operating procedure, practice, or the like that, if not correctly performed or adhered to, could result in a fault. (undesired condition that can lead to an error) Do not proceed beyond a CAUTION notice until the indicated conditions are fully understood and met.

<b>API</b>	application programming interface
<b>B2B</b>	board-to-board
<b>DSP</b>	digital signal processing; digital signal processor
<b>EDK</b>	Embedded Development Kit
<b>IOB</b>	input / output blocks; I/O blocks
<b>IP</b>	intellectual property
<b>ISP</b>	In-System Programmability
<b>PB</b>	push button
<b>SDK</b>	Software Development Kit
<b>TE</b>	Trenz Electronic
<b>XPS</b>	Xilinx Platform Studio

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To confront directly with the responsibility toward the environment, the global community and eventually also oneself. Such a resolution should be integral part not only of everybody's life. Also enterprises shall be conscious of their social responsibility and contribute to the preservation of our common living space. That is why Trenz Electronic invests in the protection of our Environment.

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Trenz Electronic is a manufacturer and a distributor of electronic products. It is therefore a so called downstream user in the sense of REACH. The products we supply to you are solely non-chemical products (goods). Moreover and under normal and reasonably foreseeable circumstances of application, the goods supplied to you shall not release any substance. For that, Trenz Electronic is obliged to neither register nor to provide safety data sheet.

According to present knowledge and to best of our knowledge, no SVHC (Substances of Very High Concern) on the Candidate List are contained in our products.

Furthermore, we will immediately and unsolicited inform our customers in compliance with REACH - Article 33 if any substance present in our goods (above a concentration of 0,1 % weight by weight) will be classified as SVHC by the European Chemicals Agency (ECHA).

## 6.2 RoHS (Restriction of Hazardous Substances) compliance statement

Trenz Electronic GmbH herewith declares that all its products are developed, manufactured and distributed RoHS compliant.

## 6.3 WEEE (Waste Electrical and Electronic Equipment)

Information for users within the European Union in accordance with Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE).

Users of electrical and electronic equipment in private households are required not to dispose of waste electrical and electronic equipment as unsorted municipal waste and to collect such waste electrical and electronic equipment separately. By the 13 August 2005, Member States shall have ensured that systems are set up allowing final holders and distributors to return waste electrical and electronic equipment at least free of charge. Member States shall ensure the availability and accessibility of the necessary collection facilities. Separate collection is the precondition to ensure specific treatment and recycling of waste electrical and electronic equipment and is necessary to achieve the chosen level of protection of human health and the environment in the European Union. Consumers have to actively contribute to the success of such collection and the return of waste electrical and electronic equipment.

Presence of hazardous substances in electrical and electronic equipment results in potential effects on the environment and human health. The symbol consisting of the crossed-out wheeled bin indicates separate collection for waste electrical and electronic equipment.



## Document Change History

ver.	date	author	description
1.00	28-09-2012	AIK	Release.
1.01	03-09-2015	THT	Header designator change