

Features and Benefits

Utility to make first magnetic evaluations
90215 4-SIP-VA
90244 4-SIP-VA
90251 4-SIP-VA
90265 SO8
90277 TSSOP14
Easy to modify or make own socket board

Applications

Additional utility for PTC04 in order to easy connect devices
Additional utility to make magnetic investigation on first samples

Ordering Information

Part No.	Description
PTC-TestBench-Magnetic	Utility for evaluating samples on PTC04

Accessories

Part No.	Description
Magnet-T01	Magnet for testing Vertical packaged devices (4-SIP-VA, VB, and VC).
Magnet-T02	Magnet for testing Horizontal packaged devices with a perpendicular field (SO, TSSOP...).
Magnet-T03	Magnet for testing Horizontal packaged devices with a rotating field (SO, TSSOP...).
PTC-TestBench-4SIP-0x	PCB with 4-SIP socket.
PTC-TestBench-TSSOP-SO8-0x	PCB with SO8 socket and TSSOP16 Socket.

1. Functional Description

The target for this tool is to support our customer in making an evaluation on our products. It must help to get a feeling in the capability of our products.
Theoretic, you only need this once to be able to evaluate any Melexis programmable hall product.

NOTE: This tool cannot be used to make perfect calibrations because we cannot guarantee the values of the magnets.

TABLE OF CONTENTS

FEATURES AND BENEFITS	1
APPLICATIONS.....	1
ORDERING INFORMATION.....	1
ACCESSORIES	1
1. FUNCTIONAL DESCRIPTION	1
2. GLOBAL DESCRIPTION	3
3. TESTBENCH DESCRIPTION.....	3
3.1. MECHANICAL OUTLINES	3
4. CABLE DESCRIPTION	4
5. PCB DESCRIPTIONS.....	5
5.1. PTC-TESTBENCH-4SIP-XX.....	5
5.2. PTC-TESTBENCH-TSSOP-SO8-XX	6
6. MAGNET DESCRIPTIONS.....	7
6.1. MAGNET T01 (VERTICAL U - MAGNET FOR SIP)	7
6.1.1. <i>Mechanical Drawings</i>	7
6.1.2. <i>Magnetic Parameters</i>	7
6.2. MAGNET T02 (HORIZONTAL H - MAGNET FOR SO, TSSOP...)	8
6.2.1. <i>Mechanical Drawings</i>	8
6.2.2. <i>Magnetic Parameters</i>	8
6.3. MAGNET T03 (HORIZONTAL O - MAGNET FOR SO, TSSOP...)	9
6.3.1. <i>Mechanical Drawings</i>	9
6.3.2. <i>Magnetic Parameters</i>	9
7. DISCLAIMER	10

2. Global description

The Testbench is a mechanical setup to allow customers to make first trials with their Melexis samples. Once the evaluations are done, customers can connect their application (or even the full process) on a similar way to the PTC0x.

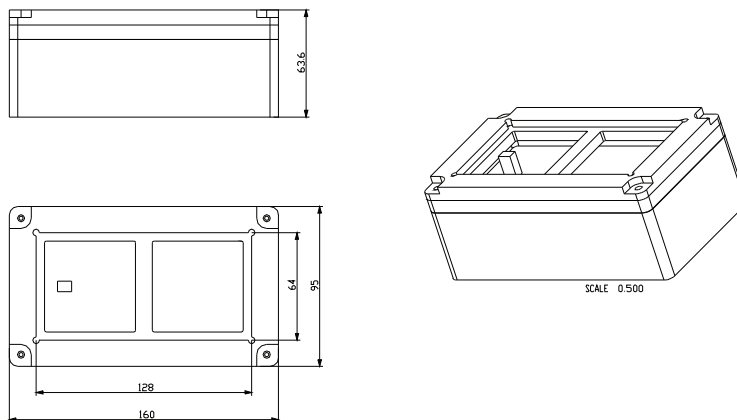
The mechanical block is a low cost mechanical platform making it possible to evaluate Melexis devices based on a repeatable field.

The PCB is easy to be replaced by a PCB with other sockets or even with your own PCBS. Four aluminium screws on the top give access to disassemble and assemble.

The absolute value of the magnetic field cannot be guaranteed. This is similar like in most real applications where the absolute field is not the most important but the position.

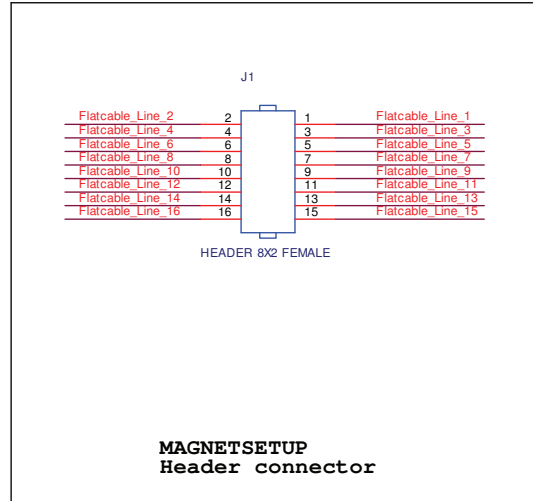
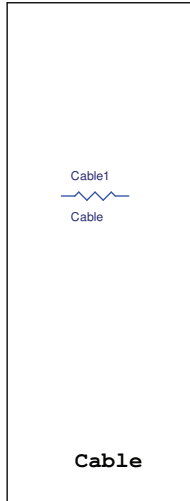
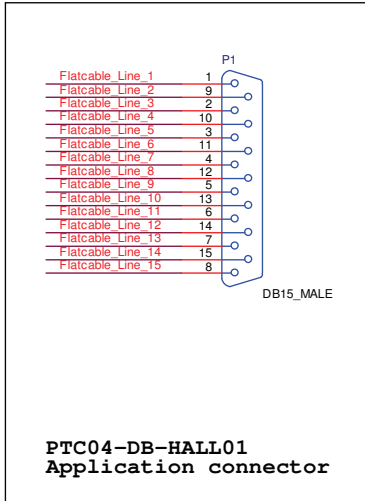
3. TestBench description

3.1. Mechanical Outlines



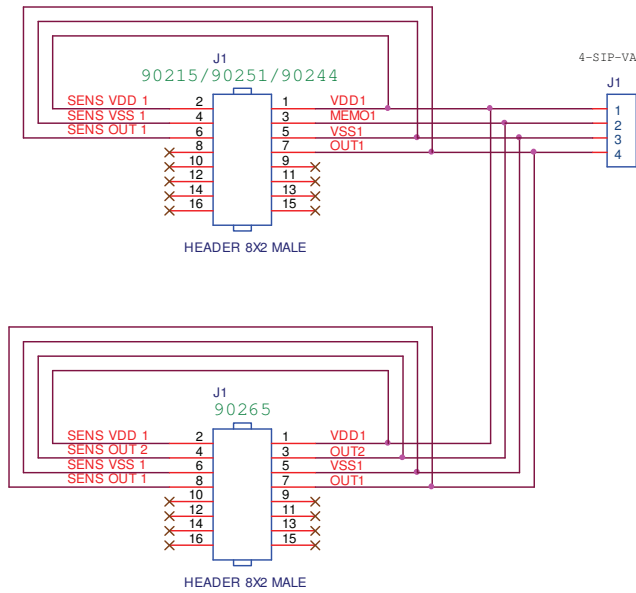
4. Cable Description

The cable makes the connection between and the PTC04.
The Header Connector will be plugged in on the TestBench PCB's.
Similar Cable can be made for own setups.



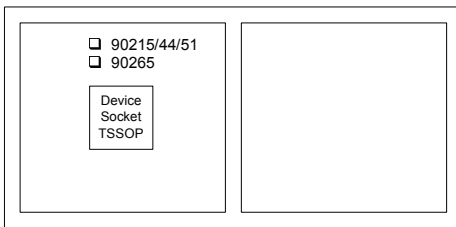
5. PCB Descriptions

5.1. PTC-TestBench-4SIP-xx

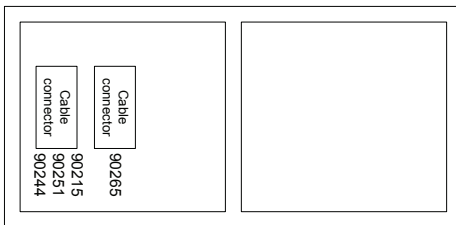


Layout PCB

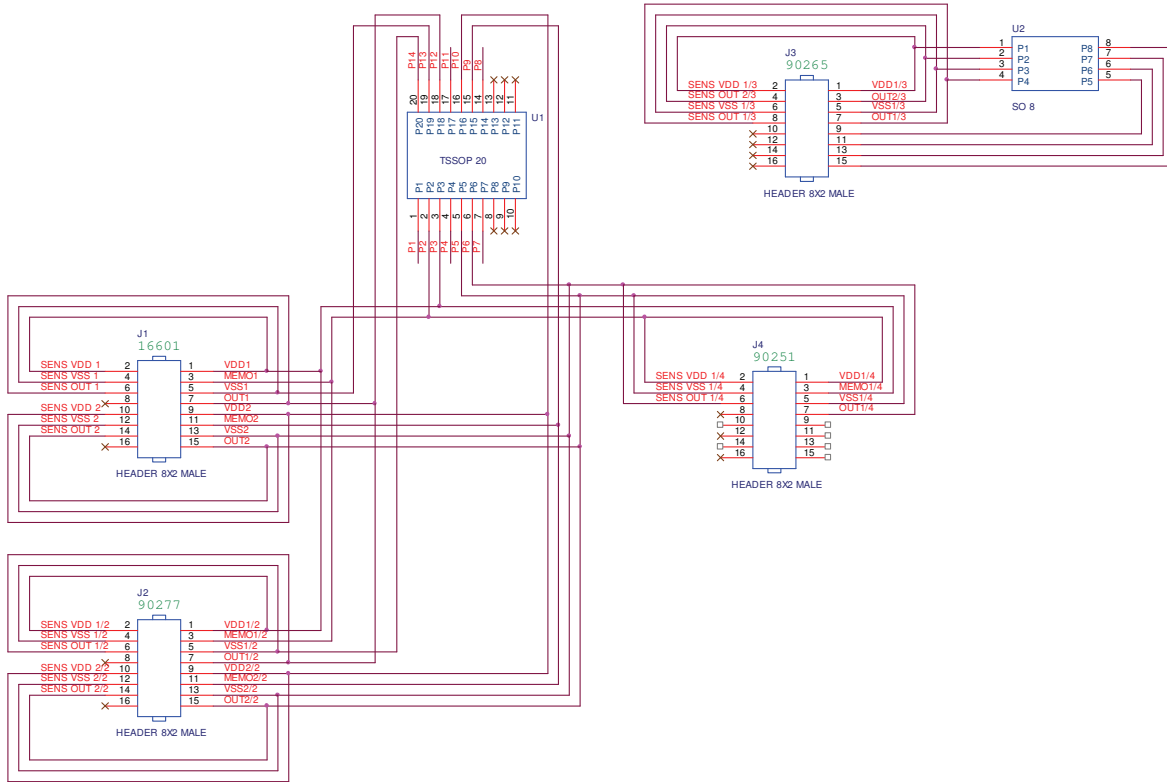
Top Side



Bottom Side

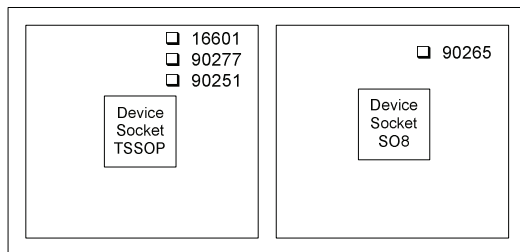


5.2. PTC-TestBench-TSSOP-SO8-xx

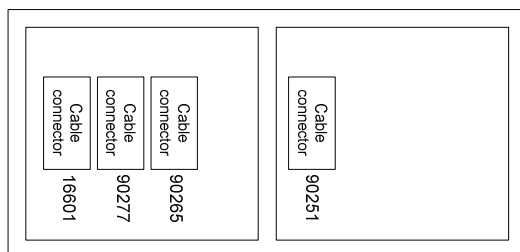


Layout PCB

Top Side



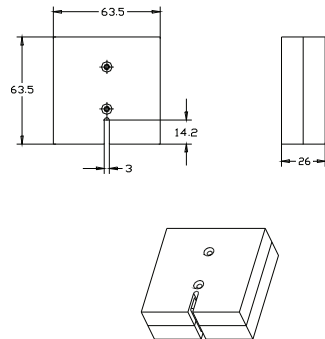
Bottom Side



6. Magnet descriptions

6.1. Magnet T01 (Vertical U - Magnet for SIP)

6.1.1. Mechanical Drawings



6.1.2. Magnetic Parameters

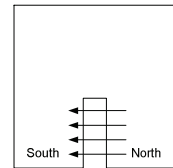
The block is configurable to 5 different field strengths. This is done by mixing the direction of the 4 internal magnets (You have access by opening the Block).

All these configurations are not accurate and so not ideal to make exact calibrations. They are only for an indication.

The default configuration as delivered by Melexis is configuration 5.

Legend

- +: Positive direction
- : Negative direction
- 0: No Magnet
- : No Magnet



Configuration 1:

Field: 0 Gauss +/- 10 Gauss

Magnet orientation

+	+
-	-

Configuration 2:

Field: 75 Gauss +/- 10%

Magnet orientation

+	+
-	

Configuration 3:

Field: 150 Gauss +/- 10%
Magnet orientation

+	+
+	-

Configuration 4:

Field: 230 Gauss +/- 10%
Magnet orientation

+	+
+	

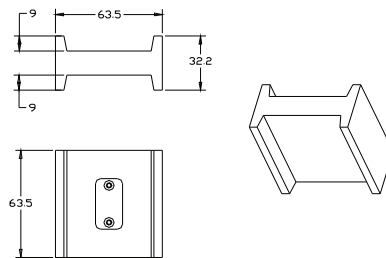
Configuration 5:

Field: 300 Gauss +/- 10%
Magnet orientation

+	+
+	+

6.2. Magnet T02 (Horizontal H - Magnet for SO, TSSOP...)

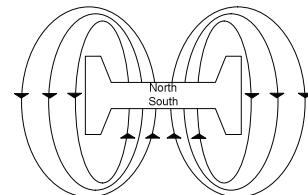
6.2.1. Mechanical Drawings



6.2.2. Magnetic Parameters

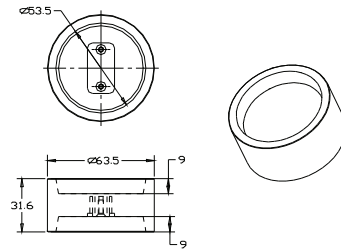
This magnet is not accurate and so not ideal to make exact calibrations. It's only an indicative.

For the SO and TSSOP Sockets, the devices get 750 Gauss +/- 10%.



6.3. Magnet T03 (Horizontal O - Magnet for SO, TSSOP...)

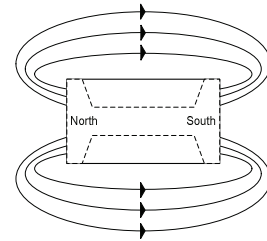
6.3.1. Mechanical Drawings



6.3.2. Magnetic Parameters

This magnet is not accurate and so not ideal to make exact calibrations. It's only an indicative.

For the SO and TSSOP Sockets, the devices get 300 Gauss +/- 10%



7. Disclaimer

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