



EVKT-LT-KNOB

Magnetic Knob for TBMA-LT Board

User Guide

DESCRIPTION

The EVKT-LT-KNOB is an accessory plastic knob equipped with a cylinder magnet, designed to fit all TBMA-LT evaluation boards. The TBMA-LT evaluation boards interface with a MACOM evaluation kit to enable connection to a PC. The MACOM GUI displays rotational motion. ⁽¹⁾

The magnet is diametrically magnetized to produce the correct input signal for MPS's MagAlpha family of sensors.

The EVKT-LT-KNOB is designed to work together with the TBMAxxx-Q-LT-xxx sensor evaluation board to quickly and easily connect together for testing the MagAlpha in a real condition. Simply choose the desired MagAlpha sensor and order the sensor EVKT along with the knob EVKT.

Note:

1) The MACOM GUI can be downloaded from the MPS website.

FEATURES

- Easy Mounting
- Quick Evaluation
- End-of-Shaft Magnet
- 80mT at the Sensitive Point
- 45° Spaced Markings

COMPATIBLE WITH

- All MagAlpha Sensors
- All TBMAxxx-Q-LT-xxx Evaluation Boards

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OVERVIEW

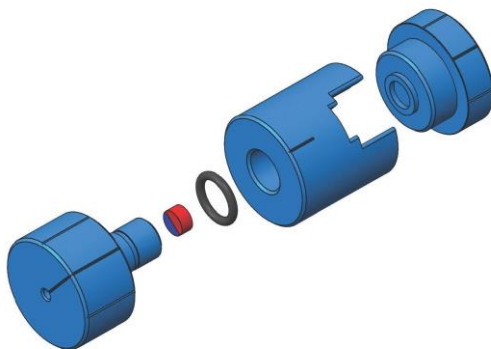


Figure 1: Overview

DESCRIPTION

The knob is maintained by a removable O-ring (see Figure 1). The magnet material is N35 (remanent field: 1.2T).

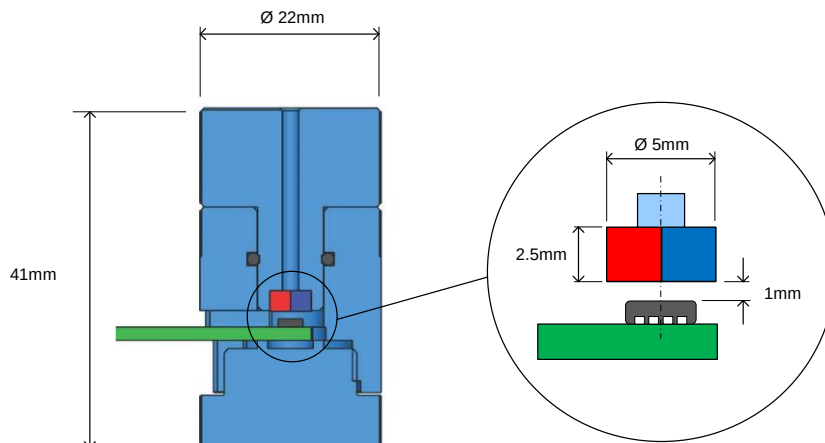


Figure 2: Knob Section View

MOUNTING STEPS

To mount the magnet on the knob, refer to Figure 3 and follow the steps below:

1. Loosen the bottom cap. It does not need to be removed completely.
2. Insert the TBMAxxx-Q-LT-xxx PCB with the MAXxx sensor facing up toward the knob, until the PCB stops.
3. Gently tighten the bottom cap by hand.

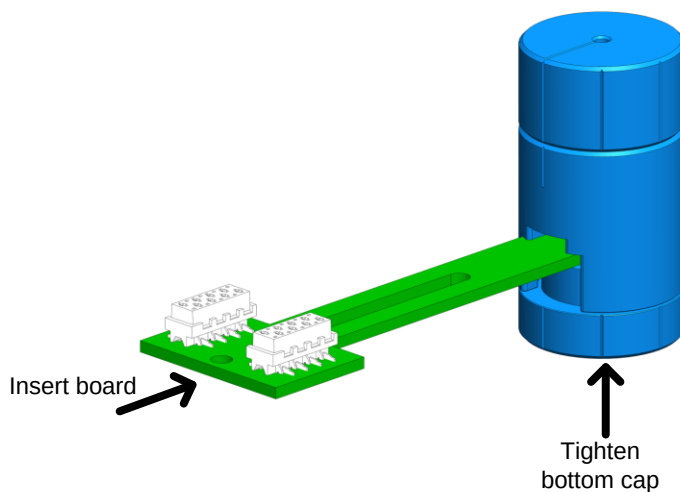
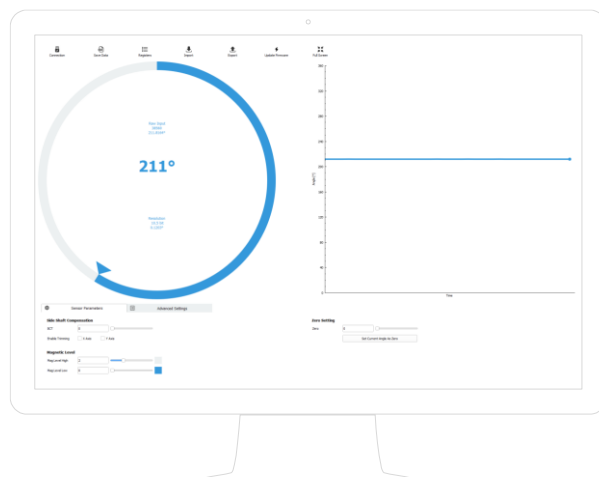
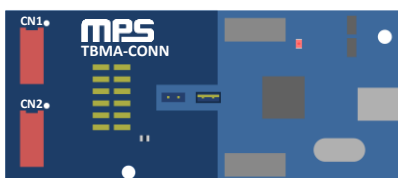


Figure 2: Knob Assembly View

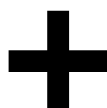
COMBINATION WITH OTHER EVALUATION MATERIALS



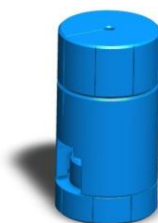
MACOM App Software



EVKT-MACOM

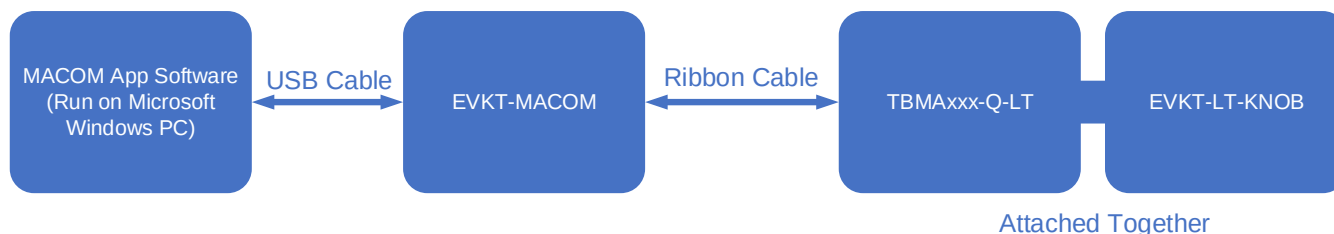


TBMAxxx-Q-LT-xxx



EVKT-LT-KNOB

Figure 3: Evaluation Materials Combination


Figure 4: Combination with TBMA LT and EVKT-LT-KNOB
Table 1: Evaluation Material Item List

Product Name	Description
MACOM app software	Desktop app used to visually interact with the position sensors. This software only runs on Microsoft Windows, and can be downloaded from the MPS website.
EVKT-MACOM	Communication kit that connects the sensor test board to the computer. Compatible with all TBMAxxx-Q-LT-xxx and TBMAxxx-Q-RD-xxx evaluation boards.
TBMAxxx-Q-LT-xxx	Long test board with the sensor mounted on the edge of the board (for side-shaft, side-shaft orthogonal, and end-of-shaft applications).
EVKT-LT-KNOB	Plastic knob that can only be attached to the long test board (TBMAxxx-Q-LT-xxx). This knob is not compatible with the TBMAxxx-Q-RD-xxx evaluation boards.



REVISION HISTORY

Revision #	Revision Date	Description	Pages Updated
1.0	09/15/2021	Initial Release	-

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